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CLINICAL LECTURES,

DELIVERED AT UNIVERSITY COLLEGE HOSPITAL,

BY

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HÆMATEMESIS.—HÆMATURIA.—MENORRHAGIA. MELÆNA.

GENTLEMEN:—We have now under treatment in our wards three cases of hæmorrhage, the first of which is entered in the case-book as hæmatemesis and melæna; the second as hæmatemesis; and the third, hæmaturia.

The first patient has been under treatment for a considerable time, nearly two months and a half, in consequence of the supervention of peritonitis soon after her admission; and the return of the hæmorrhage from the stomach, subsequently, along with the occurrence of profuse menorrhagia, which last has been obstinate, and has also returned twice.

The second patient has been under treatment only for ten days, and is convalescent. The third patient has been longer under our care, and is progressively improving.

Each of the cases presents circumstances of interest, especially as regards the etiology of the disease in those of hæmatemesis, in which the morbid condition giving rise to the hæmorrhage in both can be traced to a very common cause indeed; viz. chronic inflammation, terminating in ulceration, probably of the follicular structure of the gastric and gastro-intestinal mucous membrane. In one of these cases, too, we have an example of a not infrequent and constitutional cause of menorrhagia, that which is the consequence of an early and generally profuse discharge of the catamenia, which often terminates at last, and without any obvious exciting cause, in menorrhagia and organic disease of the uterus. We have also an example, in this patient, of the singular fact of menstruation occurring during pregnancy. She says that the discharge was small in quantity, but pretty regular in its periods, and similar in other respects to what it usually is. She had a child at the early age of 15, and at different intervals of time three miscarriages, most probably the consequences of the hæmorrhagic character of the catamenia, or rather of the constitution of this patient. I shall commence with the history of her case.

Charlotte Hyam, aged 27, admitted March 8, 1839, dress-maker; good conformation; slight figure; sanguine temperament; of not very regular habits, and has been living in a close confined situation. There appears to be no hereditary predisposition. She had very good health until the birth of her first child, which was when she was but 15 years of age, since which she has never been perfectly well. She has had three miscarriages, one at seven months, and two at four months, and one living child at the full period. About six months ago, had a severe attack of rheumatism (which, she thinks, was the cause of her last miscarriage) which lasted about three months, and has ever since been subject to a constant pain at the epigastrium, loss of appetite, and, at times, sickness. About three months ago she had gonorrhœa (contracted from her husband), and has been a patient under the care of Mr. Quain for two months for that complaint, and while under treatment had an attack of peritonitis, for which leeches were employed without much benefit; calomel, also, was taken till the mouth became sore. On Friday last she passed a quantity of blood by stool, and on the next day by vomiting, to the extent of about a teacupful, which was dark and clotted. The bowels have not been opened since. The hæmatemesis continued until yesterday; that is, for the last six days, but in diminished quantity. She experienced great pain, of a burning character, at the epigastric region; her abdomen became distended, and she was much troubled with wind, and other symptoms, to be noticed under the head of

Present symptoms.—She now complains of great pain in the epigastrium on pressure, and also all over the abdomen, which is greatly distended and tympanitic. The pain is most severe over the stomach; she vomits every-

thing she takes, and the swallowing of all kinds of food causes a sensation of burning and rawness in the stomach, which ascends throughout the course of the œsophagus to the mouth; and hot fluids are the most intolerable. There has been no vomiting of blood since yesterday morning. She is much troubled with wind, spasms, or tormina. The bowels have not been open for seven days. The skin is generally cold, and her feet and hands extremely so; she has frequent shiverings and cold perspirations. The tongue is loaded from the effects of the calomel; pulse 114 and feeble; she is extremely weak.

Such is the history of this case up to the time of admission of the patient, the predominant symptoms of which were those of hæmatemesis and melæna. The discharge of blood first took place from the bowels, and on the following day from the stomach, from which it continued to be discharged, in diminished quantity, by vomiting, during the five or six following days, and on the day of her admission it had entirely ceased. Notwithstanding that the blood first appeared in the stools, there were circumstances in the history of the case, as well as actual symptoms, which led us to consider the stomach as the source of the hæmorrhage. For a period of six months she had complained of a constant pain the epigastrium, with loss of appetite, and occasional sickness, and when submitted to our examination the pain in this situation was great; everything swallowed was rejected by vomiting, and gave rise to a burning sensation extending along the œsophagus to the mouth. From the long continuance of this pain, the anorexia, and sickness, I gave it as my opinion that chronic inflammation was, from the commencement, the cause of these symptoms, and that the special seat of the inflammation was the follicular structure of the mucous membrane of the stomach. The reason which I gave for my belief that the follicular structure was the chief seat of the disease is derived from the anatomico-pathological fact that hæmorrhage from the stomach occurs by far most frequently from this structure, as a consequence of ulceration, in chronic gastritis. In stating this fact and attaching to it so much numerical value, I, of course, mean it to apply to organic diseases of the stomach, exclusive of all vicarious discharges of blood from this organ. With this view of the nature of the case, and the circumstance of the hæmorrhage having already ceased, we regarded the prognosis as not unfavourable. The strength of the patient was, no doubt, much reduced; she felt extremely weak; the pulse feeble and quick, as usual under such circumstances, with great coldness and pallor. It was obvious that no active treatment was indicated as regarded the hæmorrhage; but as the bowels had not been moved for several days, and as the tympanitic state of the abdomen, which was considerable, might be the cause of the pains and tormina complained of by the patient, mild laxatives were ordered, but these not operating, on the following day a turpentine enema was administered; an anodyne to be taken at night, to procure some repose, and a sinapism to be applied to the epigastrium, with the view of relieving the pain in the stomach. On the following day the state of the patient was much the same. The tympanitic distention was not so great, but the medicines had not acted freely on the bowels, in consequence of which a full dose of castor oil was ordered. On the 11th the tenderness over the epigastric and hypogastric regions was still very great, even on the slightest pressure, together with extreme coldness of the body and limbs.—Six leeches were ordered to be applied to the former, and ten to the latter region.

12. Complains of not being so well as yesterday; was very sick during the night, but brought up only a clear fluid like water. No discharge of blood. Tenderness at the epigastrium less since the application of the leeches; the face, however, is flushed, and the pulse rather quicker and sharper. As this state of the pulse continued on the following day, with frequent flushings of the face, and the tenderness of the hypogastrium, she was bled to ten ounces; and, as she still felt sick, was ordered to take six minims of dilute hydrocyanic acid, in an ounce of camphor mixture, every four hours.

14. No improvement; rather worse; extreme tenderness over the lower part of abdomen; the retching has continued all night, but a frothy fluid only is brought up. The blood drawn was buffed and cupped; pulse 68, and weak. Notwithstanding the means hitherto employed, the peritoneal inflammation continued to increase, more particularly in the hypogastric region. The weakness of the patient, however, rendered further general bloodletting inadmissible; fifteen leeches, therefore, were applied to that region, and five grains of blue pill ordered to be taken three times daily.

15. The sickness less severe, and less distention of the abdomen; still, however, considerable tenderness over the abdomen, especially at the hypogastrium, and the pulse has risen to 80, but weak.—Leeches were repeated to the same amount to the hypogastrium, and a blister applied to the epigastrium.

16. Much better; sickness gone; less pain in the epigastric and hypogastric regions; much relief from the leeching. Whilst the leeches were being applied the patient experienced a sensation as if something had burst in the region of the uterus, which was followed by an abundant discharge of a clear, rather glairy fluid, from the vagina, and the distention which had been observed there

previously disappeared. This discharge has continued since, and is much more plentiful in the erect position of the body.

17. Improving; abdominal tenderness very slight; the discharge from the vagina continues; mouth affected by the mercury, the use of which is to be omitted.

19. No pain in the abdomen, even on pressure. The gastric pulsation, which had been very considerable for several days, had also disappeared; the tongue was becoming clean, and although she slept but little, she was not prevented by pain.

23. No tenderness; no sickness; bowels freely open; rheumatic pain in the loins and limbs, of which she complained two days previously, still continues; it was, however, slight, and not requiring special treatment. As there was no longer any sickness the hydrocyanic acid was laid aside, and a light, bitter tonic ordered, viz., an ounce of the infusion of wormwood. The appetite improved in a few days, and full diet was allowed on the 26th.

April 1. Not so well; since she was put on full diet there has been some pain in the epigastrium, and headach, with sickness and loss of appetite. The rheumatic pains returned, and were rather severe for nearly a week; these were at first treated by colchicum, and afterwards by the iodide of potassium, with relief. The pain in the epigastrium increased, but again subsided by leeching and poulticing. Several days of progressive improvement followed, without any return of hæmorrhage, but on the 16th she experienced a sense of weight in the stomach, and vomited a small quantity of blood. As the hæmorrhage was slight, and accompanied by very little increase of the pulse, or temperature of the skin; a draught, containing ten minims of dilute sulphuric acid, was ordered to be taken three times daily. The occasional vomiting of blood, however, continued the two succeeding days, and was followed by profuse menorrhagia, and considerable pain in the loins.—Cupping in the loins to ten ounces; cold lotions to the hypogastrium, and the acidulated draught to be continued.

19. On the next day the pain in the loins was relieved, but the uterine hæmorrhage continued, as well as that from the stomach. Twenty minims of the oil of turpentine, in a mucilaginous mixture, were now ordered every four hours. The oil of turpentine caused vomiting every time it was taken, and was, consequently, laid aside; eight grains of compound kino to be substituted if necessary.

23. The abdomen had become again tympanitic; the bowels were confined; there was thirst; the patient was hot and feverish at night, and had no sleep. The menorrhagia continued, with still some pain in the loins; the pulse 64, and weak. The use of a saline, consisting of 1-6th of a grain of tartarised antimony, and a drachm of sulphate of magnesia, in an ounce of water, taken every four hours, was followed by considerable benefit for several days. The sanguineous discharge from the uterus still continued, however, and, although not considerable, small doses of the acetate of lead and opium were had recourse to, with slight advantage at first, but in the course of a week with success.

On the 14th the patient took one grain of the acetate of lead and a quarter of a grain of opium three times in the day, and on the 18th was pronounced convalescent, and to be discharged on the 20th, at her own request, although advised to remain a few days longer, for the reason which I stated to her, that there was still a probability of the hæmorrhage returning. The menorrhagia did, in fact, return on the 20th, nearly as profuse as before, and continued to flow during the night, the blood appearing frequently in clots, and accompanied with considerable pain in the loins. On Tuesday last, the 22nd, it had considerably diminished; the pains were also nearly gone; there was no febrile excitement, and no derangement of the digestive organs. She again took the acetate of lead.

For the reasons I have already stated, I am fearful that the menorrhagia in this case will continue to resist any mode of treatment that may be adopted; or, if checked from time to time, as it has been, will ultimately terminate in organic disease of the uterus, of which carcinoma, in some one or other of its forms, is by far the most common; for it is the result of repeated observation, that menorrhagia is the frequent precursor of cancer of the uterus, whether it occurs before the cessation of the menstrual discharge, and as an exaggeration of that function, or afterwards, as a separate state.

After the first attack of menorrhagia had ceased, I examined this patient *per vaginam*, in order to ascertain if any organic disease existed, but no abnormal appearance could be detected.

From the view which I take of this case, the prognosis is materially altered from what it was at first. We had then only hæmatemesis; and, although this was dependent on a chronic affection of the stomach, there were no grounds for believing that the latter was not remediable by proper treatment. The subsequent and repeated occurrence of the menorrhagia, under the circumstances which I have mentioned, renders the prognosis very unfavourable indeed, and the more so as the patient is not in a condition of life to obtain a continuance of those means which would afford her a chance of recovery. These means would consist chiefly of a temperate and easy mode of life; quiet of body and mind; the avoidance of all *local* excitement; and the occasional detraction of blood over the loins.

I have only a few observations to make on the treatment adopted in this case. At no period was bloodletting required or indicated for the cure of the hæmorrhage. Leeching and one bleeding from the arm were had recourse to, but it was in consequence of the gastric affection, and the peritonitis that supervened soon after the admission of the patient, and which, with the use of the blue pill, were effectually overcome. And it is worthy of remark, that the antiphlogistic treatment employed for the cure of this acute affection, did not prevent the recurrence of the hæmorrhage, although had this not been employed, it might, perhaps, have been more severe. Of the remedies employed to arrest the hæmorrhage, the acetate of lead was, apparently, the most efficacious, although it obviously effected only a palliative or temporary benefit.

The supervention of rheumatism during the course of the disease, and of which the patient had a severe attack some time before her admission, obliged us to suspend the treatment for the primary affection, and have recourse, first, to colchicum, and afterwards to the iodide of potassium, successfully.

Before concluding my remarks on this case, I must notice the discharge of a clear, rather glairy fluid, which took place suddenly from the vagina, preceded by a sensation as if something had burst in the region of the uterus, and followed by the diminution in bulk and disappearance of the distention, or swelling, previously observed for some time in that situation. I can offer only a probable conjecture as to the source of this discharge. It must have proceeded from the cavity of the uterus, from some one of its appendages, or from the cavity of the abdomen. That it did not proceed from the uterus is more than probable, from the state of the catamenia to which I have alluded. That it did not proceed from the cavity of the peritoneum is still more probable, for had the peritonitis, under which the patient suffered, terminated in effusion, of which there was no physical sign, and the effusion escaped by perforation of the vagina, of which I do not know of a single example, instead of a clear, glairy fluid, we should have expected to have found either a turbid, or somewhat grumous fluid. The probability is much greater in favour of its having come from an enlarged ovary, or from a dilated fallopian tube, communicating with the cavity of the uterus. Ulceration and mechanical injury have effected such a communication, and given issue, by the vagina, to the fluid contents of ovarian dropsy, and a similar disease of the fallopian tubes.

In conclusion, I may observe, that the dark-coloured, almost black dejections from the bowels, which occurred in this, and, indeed, in the next case, consisted of blood blackened by the acid contents of the digestive canal; that their appearance indicates no necessary change in the colour or other properties of the blood previous to its being effused; and that it occurs, in a greater or less degree, in all cases of hæmorrhage from the stomach or bowels, whenever the acid contents of these organs are present in sufficient quantity.

Charlotte Evans, aged 20, admitted May 10th; of middle stature; slender conformation; bilious habit; is a servant; has been living for the last two years in town; prior to this period had been at Tonbridge Wells for her health with some benefit; her habits and mode of life have not been very regular; her mother is living and well; her father died of some affection of the liver. She resided at Brighton for several years, but here her health became so bad that her medical attendant advised her to leave. After twelve years of age her health became delicate, and has been so ever since. She has been subject to chronic indigestion, sometimes more, sometimes less. A sense of weight, oppression, and occasionally of burning heat at the epigastrium, generally felt two or three hours after, and aggravated by, a meal. Food turns sour on the stomach, and is vomited some time after having been taken, and is succeeded by flushing of the cheeks and burnings of the palms of the hands and soles of the feet, and sometimes a death-like coldness of the latter. The sense of weight and tension at the epigastrium is aggravated by cold, and relieved by hot fluids. The attacks are followed by great sallowness. She has taken stimulants of various kinds, but with only temporary relief. A few days ago, after more than ordinary uneasiness and sense of oppression in the region of the stomach, she became very sick, and soon afterwards vomited a considerable quantity of dark and firmly coagulated blood (half a pound). She had passed dark-coloured grumous stools for some days previously, and complained of distressing nausea for some days past; the last vomiting of blood was on Tuesday morning. The loss of blood was followed by great debility and occasional swoonings.

Present symptoms.—Surface of the body cold, exsanguinous, and dry; countenance expressive of languor and debility; sclerotica of a pale-blue colour; contractions and dilatations of the alæ nasi; respiration accelerated; respiratory sounds natural, those of the heart, also, natural, but too strong and too extended; tongue pale, and slightly red at the tip; appetite moderate; bowels costive; tenderness on pressure over the right hypochondrium, extending towards the region of the stomach; urine natural; catamenia regular.

May 11. To-day, when I first saw the patient, the pulse was 100, not full, but slightly hard; the skin warm and dry; and some thirst. The tenderness on pressure was most marked, if not confined, to the

right hypochondrium, over the region of the duodenum and pyloric portion of the stomach. The stools passed during the night contained no blood, the hæmorrhage having ceased spontaneously.

The history of this case, as regards the hæmatemesis, is, in many respects, very similar to the preceding one. The nature of the disease was obviously the same in both. In the former, chronic gastritis; in the latter, chronic gastro-duodenitis, the pyloric portion of the stomach and duodenum being the chief, if not the exclusive, seat of the pathological change affecting these parts. The diagnosis as to the precise seat of this change was certainly founded principally on the circumstance of pain being referred to the region in which these parts are situated, and which was very tender on pressure, which was not the case in the neighbourhood of the fundus of the stomach. None of the symptoms presented by the patient before her admission were peculiar to chronic inflammation of the duodenum, although the occurrence of the weight, oppression, and burning sensations, of which she complained not until two or three hours after a meal, have, by some pathologists, been regarded as more marked or more frequent in this affection than in chronic gastritis. The frequent occurrence of sallowness, too, which was observed in this patient after each attack, is considered a very constant result of chronic duodenitis, either owing to the swollen or congested state of the mucous membrane of the duodenum obstructing mechanically the orifice of the ductus communis choledochus, or from the extension of the inflammation, when exasperated, to the mucous membrane of the gall-ducts, thereby producing a similar effect, and, consequently, an accumulation of bile. The nature of the lesion causing the hæmorrhage, I also believe in this case to be ulceration, and, most probably, follicular ulceration, which, in the duodenum, as well as in the stomach, sometimes proceeds to a very great extent.

I may also notice the circumstance here of the blood in this case, as in the former, having been first passed by stool and afterwards by vomiting. In this case a dark-coloured grumous matter was passed for several days before any blood was vomited; and this circumstance, in a patient in whom the stomach was so irritable, renders it still more probable that the duodenum was the chief seat of the hæmorrhage.

In this case, as in the former, there were no symptoms or other circumstances which furnished grounds for an unfavourable prognosis. The hæmorrhage had not been very considerable, and had ceased spontaneously on the day of admission of the patient.

Although the pulse was 100, and rather hard, it was not full; and as the temperature of the skin was moderate, there was no obvious necessity for depletion. Slight astringents, and counter-irritation, were considered the only necessary and most likely means to prevent the recurrence of of the hæmorrhage. Accordingly, fifteen minims of dilute sulphuric acid, and six of tincture of opium, in an ounce of infusion of roses, were ordered, every six or eight hours; and a blister to that part of the hypochondrium in which the pain and tenderness were felt.

24. No return of vomiting, nor do the stools contain blood. The blister has removed the pain and sense of weight from the epigastrium. Pulse reduced to 80, and fuller than before; tongue pale and clean; bowels confined. In consequence of there being no return of the hæmorrhage, and the confined state of the bowels, the mixture was omitted, and two drachms of castor oil to be taken the following morning. As the patient expressed a desire for food she was allowed milk and an egg daily.

18. Much better; perfectly free from pain; no tenderness on pressure over the epigastric and right hypochondriac regions; the colour of the cheeks gradually returning.—Ordered, ten minims of muriated tincture of iron, in ten drachms of compound infusion of gentian, twice daily; and milk and fish diet.

20. Still improving; feels stronger, and has got up.

Very little treatment, you perceive, was rendered necessary in this case. The blister to the epigastrium was followed by immediate and permanent relief from the sensation of weight and pain felt in that situation; and the tonic and specific effects of the iron were early visible in the returning strength of the patient and the reappearance of the red colour of the cheeks.

This preparation of iron is, perhaps, the best tonic we can employ after hæmatemesis, depending on chronic follicular ulceration, as its highly astringent property will contribute to prevent any return of the hæmorrhage, which might arise in consequence of the excitement of the circulation which all tonics are apt to produce.

The third case is that of John Dairy, æt. 40, admitted for hæmaturia the 9th May. He is of a stout, muscular conformation, sallow complexion; is a farrier; married; of pretty temperate habits. His parents are dead; has no hereditary predisposition. Previous health good. His employment has subjected him to repeated injuries.

About eight years ago a horse fell on him, and he became insensible from the shock, but received no external injury. Soon after the accident he passed his water, which was bloody, and in great quantity, two quarts at a time. He felt pain just above the pubes, which was relieved by emptying the bladder. He was under medical treatment for two months without any

relief; but afterwards went to St. George's Hospital, where he remained thirteen weeks, and was discharged cured.

On the 7th of May last, whilst in the act of shoeing a horse, he received a twist in the loins, from the horse's foot being violently withdrawn from between his left thigh and abdomen. He again observed his urine tinged with blood, and more copious than natural.

Present symptoms.—Heat of skin natural; tongue white, and great dryness of fauces; sleep disturbed by pain referred to the top of the bladder, and frequent calls to void his urine, the pain being relieved after emptying his bladder; appetite completely gone; great thirst; bowels well open, from the action of medicines; pulse 62, intermittent; urine dark-coloured and tinged with blood, no deposit.

The nature of the injury, and the bloody-coloured urine, were sufficient to establish the diagnosis in this case. Hæmaturia, or bloody urine, however, may have its source from hæmorrhage of the bladder, the ureters, or kidneys; from which of these it is doubtful in this case. Pain was first referred by the patient to the top of the bladder, but four days after he complained of severe pain in the inferior and left side of the abdomen, in the direction, in fact, in which the injury was inflicted; and also in the left lumbar region. It is, therefore, likely that the bladder and kidneys were both implicated in the injury, and furnished the blood which appeared in the urine. The quantity of blood was not very considerable, and presented no coagula.

The increased secretion of urine which accompanied the hæmorrhage now, and after the former accident, is a singular circumstance, and certainly does not indicate that any serious injury has been inflicted on the kidneys.

The sallow, unhealthy aspect of the patient is very similar to that which accompanies malignant disease; but there is no ground for believing that any such disease of the kidneys or bladder exists. The mechanical nature of the cause of the hæmaturia was too obvious on this and the former occasion to admit such a morbid influence as necessary to its production.

The disease on the former occasion appears to have been very obstinate, having lasted upwards of five months; on the present occasion it promises to terminate favourably much more speedily.

As the quantity of blood discharged with the urine was not considerable when the patient was admitted, and was diminishing, an acidulated and aperient draught, containing ten minims of dilute sulphuric acid, and two drachms of the sulphate of magnesia, were ordered, three times daily; with rest and low diet. The pain in the lumbar region was greatly relieved by cupping to twenty ounces, and had nearly disappeared at our last visit. He then complained of great weakness, and, as the urine still continued to be slightly tinged with blood, he was ordered ten minims of the tincture of the muriate of iron, three times daily, and to have a little meat for dinner.

21. The urine is more natural; the countenance less sallow; he complains, however, of thirst and want of sleep at night.—To have an opiate; toast-water for drink; and to continue the muriate of iron.

MEDICAL JURISPRUDENCE.

To the Editor of THE LANCET.

SIR:—Perceiving, by the late numbers of your Journal, that you are determined to fill up the blank that existed in the medical literature of England, by devoting a portion of your space to communications connected with forensic medicine, I beg to place at your disposal an extract from a lecture, containing an account of a medico-legal investigation which was conducted by my colleagues, Messrs. Dawson and Potter, and myself. I have the honour to be, Sir, your obedient servant,

MARTIN H. LYNCH.

2, Queen-square, Newcastle,
June 8, 1839.

NEWCASTLE-ON-TYNE SCHOOL OF MEDICINE AND SURGERY.

Extract from an Introductory Lecture on Forensic Medicine, delivered by MARTIN H. LYNCH, *M.D., on the 1st May*, 1839.

A young unmarried woman, without having previously complained of bad health, was seized with sudden illness, and died in about twenty-four hours, having been first seen by a medical man when she was *in articulo mortis*. Suspicions of various kinds were excited, and a coroner's inquest was held.

Now, before dissection, what conjectures might be formed in this case as to the cause of death?

From the sudden accession of the symptoms, the description which was given of them, and the short time within which death took place, it would appear that, if dissolution had been the consequence of *poison only*, this poison must have been a *corrosive* (such as sulphuric acid, &c.), or one of the most energetic of the irritants.

What information did an examination made by medical men supply?

On dissection the stomach was found perforated at the centre of an ulceration placed near the pyloric orifice of the organ; the surface of the ulcer was formed by the slightly thickened peritoneal coat, and this membrane was pierced by an opening, of a round or oval form, with a smooth edge,

and much less diameter than that of the ulcer itself. The edges of the ulcer were rounded, elevated, pretty firm, and (apparently) formed of the muscular and mucous coats, thickened with coagulable lymph; these edges formed a circle concentric with that constituting the *perforation*, (and of course larger than it).

In another part of the stomach, namely, the posterior wall, and much to the left of the lesion already described, an ulcer was discovered, whose edges were rounded, and otherwise similar to those of the "pyloric" ulcer,—but there was *no* perforation here; the surface of the ulcer was formed of a smooth membrane, which dissection proved to be coagulable lymph thrown out upon the surface of the pancreas, to which it firmly adhered, being, indeed, of a semicartilaginous consistence. The adhesion was so firm that there could be no doubt of its being of some standing, and it was evident that it had been the means of preventing *perforation* occurring *long previously* at this point. The edges and surfaces of both ulcers, and, indeed, the organ *generally*, were pale; there was not the slightest trace of recent acute inflammation either in the stomach or œsophagus; the only morbid state was a softening of the mucous membrane. These ulcers were clearly old and chronic, and could not have been produced by poison taken a few hours before death (especially the adherent one); they were, in fact, admirable specimens of the chronic ulcer of the stomach,* so accurately described by Cruveilhier, who has shown that, as in this case, they may exist for a long time without giving rise to *any symptoms*.

But it might be said, that although these were really "chronic ulcers," poison had been taken, and was the cause of death. This, however, could not be the fact, for, as I have already said, there was not the slightest appearance of erosion or recent inflammation of the stomach or œsophagus, and a careful chemical analysis, conducted by Mr. Potter, the lecturer on chemistry, and myself, could detect no deleterious substance. Besides, if nitric acid had been taken there would have been yellow stains present, and if *any* of the acids had been taken the blood-vessels in the parietes and neighbourhood of the stomach would have exhibited a dark,† indeed a black, tinge (a consequence of the action of the acids on the hæmatosine of the blood).

The peritoneum was throughout intensely inflamed, its cavity contained a large quantity of citron-coloured fluid, and some soft lymph. Upon the surface of the citron-coloured fluid floated some oil. (The girl's illness commenced shortly after she had taken an ordinary dose of castor oil.)

From what has been stated there could be no hesitation in concluding that the "chronic ulcer" had produced *perforation*, that the perforation gave rise to peritonitis, and that the latter was the cause of death.

It is not improbable, however, that this girl, some time previously, had taken vegetable acrids, for the purpose of procuring abortion. The part of the investigation connected with this subject is very interesting; it was impossible, however, to bring forward anything deserving the name of *evidence* as to the taking of drugs for the purposes of abortion; we merely formed *conjectures* which it may, perhaps, be useful to record in order to direct attention to the subject.

Having directed the policemen in attendance to make a search for any substances of a suspicious nature, whether fluid or solid, I received from them a paper parcel, containing, seemingly, some coarsely powdered leaves. The paper was much soiled and crushed, so as to have the appearance of having at one time contained a much larger quantity of the powder, and of having long been used for the purpose. The parcel was found in a place to which no one had access but the deceased. The powder apparently consisted of leaves which had been dried or almost toasted before the fire, and subsequently rudely pulverised; the colour was brown tinged with green.

The state of the ovary, which I shall presently describe, induced us to compare this powder with savine, but no resemblance could be detected between their smell; and the substance under examination had not the taste of savine. Nevertheless, on mak-

* "Revue Medicale," t. I., 1838, pp. 236, 352.

† (Berzelius on Organic Chemistry.)—I have examined the action of the acids and *super-salts* on the blood, and found that this dark colour is often produced by a very small quantity of an acid or super-salt. In a case of hæmaturia which I published in the "Dublin Journal" two years since, this dark colour seemed to have been formed in the bladder during the use of alum and sulphuric acid in large doses. What rendered it probable that this dark colour was produced by the *sulphuric* acid *administered*, and not by lithic acid, phosphoric acid, &c., is, that before alum and sulphuric acid were prescribed, the urine was tested with litmus paper two or three times weekly, and its acidity determined;—but nevertheless the dark colour had not been observed. I take this opportunity for stating that my patient remained free from hæmaturia for several months, and being then seized with a fever, similar to that prevailing in his neighbourhood, died in a comatose state, without any *suppression* of urine, or *return* of the bloody discharge. I have not been able to ascertain whether the urinary secretion had become albuminous, or otherwise diseased.

ing an infusion of each in distilled water, we fancied that the powder (found) had a smell similar to, but weaker than, the infusion made of savine powder.

Whilst Mr. Potter was engaged in examining this substance with a lens, he observed in it *innumerable* fine and *short* hairs, or vegetable bristles, as they might be called; having compared them with those terminating the leaves of a specimen of juniperus sabina in my herbarium, they seemed absolutely identical, and their great number would be accounted for by the very numerous imbricated leaves of the savine juniper. There were some fragments, also, of disk-like leaves in the suspected substance, but this did not surprise us, as it is known that persons who prepare savine for the purpose of procuring abortion often mix with it other vegetables possessing, or supposed to possess, the same properties, such as rue.*

The following is a description of the state of the ovary, which led to the preceding inquiry as to the nature of the powder. In the right ovary was found the most perfect corpus luteum I ever saw. A portion of the ovary projected, as the cornea does from the eye, and presented the peculiar colour "ex flavo rubens;" upon the surface of this projecting part was a minute orifice, somewhat like a rent in a membrane, and quite free from puckering; a section of the protruding part was made through the "minute opening," and this disclosed to view a cavity large enough to hold a moderate-sized pea; but instead of† having white, very firm walls, this cavity had parietes which presented intense redness, and a surface consisting of very small papillary eminences.

There was no embryo found in the uterus, and Mr. Dawson, who has paid much attention to embryology, and all matters connected with midwifery, was of opinion the uterus showed no signs of having recently contained a fœtus.‡

The hymen had disappeared and was replaced by caruncule myrtiformes; the vagina did not present the relaxed state observed after delivery or abortion.

I was, at first, inclined to consider the great vascularity of the walls of the cavity in the corpus luteum as connected in some way with the peritoneal inflammation; but, on reflection, I deemed it a proof of *recent impregnation*, a view which seems to be supported by a case of undoubtedly recent conception recorded by Sir E. Home in the "Philosophical Transactions" for 1817; the body was examined by Sir E. Home and Mr. Clift, who found in one of the ovaries a corpus luteum in which there was a cavity filled with coagulated blood; although a magnified view of the cavity accompanies the paper, nothing is said with regard to the nature of the parietes.

From what has been related I concluded that the girl had recently conceived and aborted; from the absence of puckering in the *rent* (or orifice) of the corpus luteum, and its patency, and the vascularity of the *cavity*, it is probable that the impregnation had been effected almost as recently as in Sir E. Home's case.

As to the employment of drugs for the purpose of abortion we could only *guess*.

Gentlemen, I relate this case thus minutely in order to establish an assertion you heard me make,—that lectures on medical jurisprudence should *not* be attended by *junior* students; and that no one can become *thoroughly* skilled in forensic medicine who is not well acquainted with all the departments of medical science; in fact, legal medicine is nothing more than the *application* of physic, surgery, midwifery, and all the *auxiliary* sciences, for the purpose of supplying *evidence* in courts of justice, or *information* to our legislators and magistrates. In the inquiry just described,—in a *single* case,—there was need of the application of diagnostic medicine, toxicology, morbid anatomy, midwifery and its accessory departments of knowledge, chemistry, and botany,—a long catalogue!

* The paper of M. Th. Helié, of Nantes ("Annales d'Hygiene"), proves that rue (besides its irritant and narcotic effect) acts specifically upon the uterus, so as to produce contractions less sudden, and more like the efforts of labour, than those produced by the ergot of rye.

† The cavity is lined with a white firm membrane at so early a period after conception as the third or fourth month.—(Montgomery "Cyclo. Prac. Med.," Vol. III. p. 497.)

‡ This, however, was perfectly compatible with *recent* abortion before the *second month*.

CLINICAL OBSERVATIONS

Delivered at the Blenheim-street Free Dispensary and Infirmary,

BY ROBERT DUNDAS THOMSON, M.D.

INEDIA.—DURATION OF LIFE WITHOUT FOOD.—REMARKABLE CASE OF ABSTINENCE FOR 71 DAYS.—DEATH.

One of the most fertile sources of debility and disease you will readily conceive to be insufficient nourishment. At this institution, which is situated on the limits of ill-ventilated, narrow streets, and a poor population, on the one side, and is bounded, on the other hand, by broad thoroughfares, elegant buildings, peopled by wealthy inhabitants, we have frequent opportunities of witnessing the consequences both of stinted and of over-liberal allowances of food. However much we may deprecate the latter

cause of disease it is certain that our sympathies cannot fail to be enlisted on the side of him who, clothed in threadbare garments, and wasted in limb and feature, claims our aid in restoring him to such a state of body as shall enable him to provide for his shrunken frame the bare necessaries of life. We have lately had under treatment a case of this nature.

J. P., aged 40, a plasterer, of wasted figure, but of good bony proportions, was admitted, labouring under a continual incontinence of urine; his arms and hands shook as if he were affected by paralysis; he complained of very great prostration of strength, and of aches in all parts of his body whenever he moved; his head felt light, and his limbs he seemed to drag after him like dead weights; he complained also of weight and faintness at the precordium. Upon a catheter being introduced into the urethra no stricture could be detected, but it was firmly embraced, at intervals, by the sides of the passage, as if by spasmodic twitches; his pulse was exceedingly weak, and his whole appearance denoted debility from insufficient nourishment. On examining him accurately upon this point, he fell into tears, and admitted that his sole means of subsistence, together with that of his wife and two children, one twelve and the other ten years of age, was derived from the scanty allowance afforded from the poor-house, which he declared positively not to exceed *half-a-crown* per week, with a loaf of bread. The cause of his disease was now quite apparent. He was ordered infusion of gentian, with carbonate of soda; to rub his abdomen with spirits of turpentine, and to have the catheter passed twice a week. In the course of a fortnight the incontinence had entirely disappeared, and he had so far recovered his strength as to be able to undertake some work which had been, fortunately, offered to him. The additional nourishment which he was thus enabled to provide restored him speedily to his usual strength.

These cases of inedia are not difficult to distinguish, as one's own sympathies will essentially assist to a correct diagnosis. Every one has experienced, in a greater or less degree, the pangs of hunger; and in a famished man this is the principal symptom; although, if he has been too long inured to the biting pain, in describing his symptoms he forgets that name, whose reality in prosperous times he was wont to satiate.

Great feebleness ensues from abstinence from food even for a very limited period, and, when carried too far, destroys the appetite. One is said, in this condition, to be, in common language, past his appetite. When deprivation of food is protracted to a certain extent, vitality must give way. But it has been an interesting subject of inquiry to ascertain how long the human body is capable of existing without food.

In the abstract of the evidence given before the House of Commons in 1790 and 1791, relative to that opprobrium to humanity, the slave trade, Mr. Wilson, a surgeon in the navy, who made one voyage in a slave-ship, relates, among many cases where force was necessary to oblige the slaves to take food, that of one young man who exhibited, from his first appearance on board, strong symptoms of feeling. He had not been long in the ship before Mr. Wilson observed that he became thin. On inquiry it was found that he had not taken his food, and that he obstinately refused to swallow any kind of nourishment whatever. Mild measures were at first used to divert him from his resolution, as well as promises held out that he should have anything he wished for; but still he refused to eat. They then whipped him with the cat, but this, also, was ineffectual. He always kept his teeth so fast that it was impossible to get anything down; they then endeavoured to introduce a *speculum oris* between them, but the points were too obtuse to enter; and next tried a bolus-knife, but with the same effect. In this state he was four or five days, when he was brought up as dead, to be thrown overboard, but Mr. Wilson finding life still existing, repeated his endeavours, though in vain, and two days afterwards he was brought up in the same state as before. He then seemed to wish to get up. The crew assisted him, and brought him aft to the fire-place, when, in a feeble voice, in his own tongue, he asked for water, which was given him; upon this they began to have hopes of dissuading him from his design, but he again shut his teeth as fast as ever, and resolved to die, and on the ninth day from his first refusal he died.

Dr. Trotter describes also a touching scene:—"A cabosheer, or chief, having a quarrel with a negro, in revenge accused him of witchcraft, and sold him and his family for slaves. When this man came on board the slave-ship he refused all sustenance. Early next morning it was found he had attempted to cut his throat; Dr. Trotter sewed up the wound, but the following night the man had not only torn out the sutures, but had made a similar attempt on the other side. From the ragged edges of the wound and the blood upon his finger-ends, it appeared to have been done with his nails; for though strict search was made through all the rooms, no instrument was found. He declared *he never would go with white men*, uttered incoherent sentences, and looked *wishfully* at the skies. His hands were secured, but persisting to refuse all sustenance he died of hunger in eight or ten days."

He mentions, also, the case of a woman "who perished from refusing food; she

was repeatedly flogged, and victuals forced into her mouth, but no means could make her swallow it, and she lived for the four last days in a state of torpid insensibility." Notwithstanding the dreadful agony which they endured by the want of food, yet you see these poor creatures preferred a death of excruciating suffering for ten days to leaving their country and becoming slaves. It is stated in the same evidence that the Guinea slaves, when burying one of their comrades in the West Indies, sing and dance, believing that the deceased has gone to Guinea.

We thus ascertain, from these facts, that the sable inhabitants of Africa can only live without food for ten days; but their condition was otherwise unfavourable to their existing, because they were cooped up in close array, so that they could scarce move, and they were constantly respiring the same air, which of itself was sufficient to deteriorate health.

In the "Phil. Trans." for 1684, there is an account of four men who were compelled to subsist on water alone for twenty-four days, in consequence of having been buried in a deep excavation, by the fall of a superincumbent stratum of earth under which they were working. The water of which they drank was from a spring at hand, and they drank of it freely, but tasted nothing else.

In the "Phil. Trans." for 1742, is an account of a young man who, having been seized with inflammatory fever, from drinking freely of cold water, contracted, on his recovery, such a dislike for all kinds of food, that for eighteen years he tasted nothing but water. This case is so marvellous, and so opposed to our own experience, that we may be permitted to have some doubts about its accuracy.

Marie Rose Felicite Hardy was admitted under the care of M. Magendie, at the Hôtel Dieu, on the 30th of September, 1837; her age was 31; she was born at Catigny, department of Aisne; she was of ordinary size, rather thin than fat, and of a sanguineous temperament; six months previously she was delivered of a healthy child. This woman affirmed that she had not partaken of food for twenty-nine months; she added that God, of whom she gave a very minute description, had made her child. For some days after admission she appeared not to have taken any food, at least there was no perceptible diminution in the meat and drink placed by her bedside for her use; neither had she any evacuations. She continued to persevere for eight days, but on the ninth day she partook of food.

In this case we have life preserved, without any prejudice, to nearly the same period which proved fatal to coloured people. These observations will prepare us for attending to a remarkable case which has just terminated; and in consequence of the individual having frequently been a private patient of my own, the most ample opportunities have been afforded for obtaining an accurate detail of facts. A notice of the case appeared in most of the daily papers some weeks ago.

J.R., aged 33, five feet nine inches high, red hair, and strumous habit, was born a "natural," or "fule," as the term goes, in Scotland; that is, an idiot. His disposition was of the most amiable kind; he was never known to do an unkind action, except when irritated; and he was, consequently, a universal favourite in the neighbourhood of the village, in the south of Scotland, where he resided. His parents at an early age sent him to school, as they said, to keep him out of mischief; but his literary powers appear to have been exceedingly limited, as he never acquired a knowledge of the alphabet, and, in fact, was only able to repeat the letters, like a *parrot*, after the master. *A*, said the master; *A*, chimed John. *B*, continued the master; *B*, said John; "*B* was a bull's fitt" (foot); yet his memory for names was of the most remarkably retentive kind; he recollected the cognomens of all the horses within a circuit of three miles; and when any resident with whom he was acquainted returned after a considerable absence, upon meeting with John he was instantly saluted with an accurate account of all the changes which had taken place in the animal world,—births, deaths, and christenings. John was rather sarcastic, and was particularly fond of bandying about any little bit of scandal, which he couched in exceedingly quaint and often unintelligible language to all but those who were intimate with his elliptical phraseology. His recognition of old acquaintances, whom he had not seen for years, was striking, and of a very gratifying description, as he accompanied it with a warm shake of the hand, and a reference to incidents which had occurred in early youth. His recollection of his school-days was particularly fresh, even till within a short period of his death. I visited him last year, when he immediately recognised me, although I had not seen him for several years, and made strict inquiry respecting a number of individuals who were natives of the neighbourhood, but who had been long resident in London and India.

He was in the habit of making daily visits to individuals in the neighbourhood, from all of whom he met with a very cordial reception, and when he received any money, which he frequently did in a present, he placed it carefully in his handkerchief, and carried it home to his mother, between whom and himself a very strong attachment existed. Such was his usual custom till the summer of 1834, when a change come over his innocent career. He happened to be walking in company with a mechanic of the neighbourhood,

whose society he very much courted; the latter, in a joke, made some observation which produced such an impression upon him that he instantly returned home, the distance of a mile, in a sulky and unusual state, and informed his mother that he had a headach, and wished to go to bed. She endeavoured to persuade him to the contrary, but he still persisted, however, and his request was complied with. But in the morning he resisted all entreaties to get out of bed, and effectually opposed all demands of the kind for some months, until one day he was prevailed upon to rise for the purpose of allowing his bed to be made, when it was found that he was quite unable to balance himself, and had lost all powers of locomotion, while his whole body had become amazingly fat. He continued to eat his victuals with accustomed relish, and to perform all his functions, as if in perfect health.

In this monotonous state he continued till June, 1838, when, on the last Sunday of that month, a violent thunder-storm having occurred, he declined to partake of any food whatever. For about a week he accepted ale or beer, but after that period he refused to drink either of these liquids. Water constituted the only substance which he would allow to cross his lips. If the water were muddy, or contained the slightest quantity of colouring matter, or foreign ingredient, he instantly rejected it; he carefully examined it before partaking of it, with a most scrutinising eye.

In this condition he remained for upwards of thirty days, when he gradually resumed his former habits, eating very heartily. During the fit of abstinence the fat was gradually absorbed, and his skin became loose and flabby. I saw him in the beginning of September following, and found him in the full enjoyment of all his natural functions, but enormously fat. His mind was precisely in the same condition as when I had formerly seen him. He endeavoured to amuse me by showing me a number of trinkets and toys which had been presented to him, and which he had carefully preserved in an old wooden box. He mentioned the names of several persons with whom he had been at school, although he had seen none of them for twenty years; and made particular inquiry about others who were living at a distance. He appeared to possess the same retentive memory as in his boyhood, and neither then, nor during his abstinence, had he ever made any complaint of pain or uneasiness.

For some months he remained in perfect health; but on the 6th of February, 1839, a similar fit of abstinence returned. For some days he vomited, and was strongly affected with nausea. He refused every article of food or drink save water or small beer. His tongue gradually increased in size, and became so swollen as to hang out of his mouth. The swelling subsided considerably after fifty days of abstinence, and this appeared to give him relief. About the same period he became deprived of all powers of utterance, although his mind was rather better than during health. During the first five days he had occasional evacuations, but none afterwards; he passed urine once in the twenty-four hours, to a moderate amount. He made no complaint, except when food was presented to him, which he eyed with abhorrence. He continued to make signals for water, which he drank to the extent of a teacupful, three or four times a day, during two-thirds of his fit of abstinence; he became gradually thinner; his eyes sank in their sockets, and he presented a ghastly aspect; his strength sensibly wasted till the 18th of April, when, after having survived an abstinence from all food, save water and three tablespoonfuls of barley-broth, six days before death, for seventy-one days, this innocent and amiable creature ceased to exist.

As no *after-death* examination took place, it is impossible to say whether any organic disease existed; but from all the circumstances there is strong presumption that the cause of the disease was entirely cerebral.

NOTES ON THE NERVOUS SYSTEM,

AND THE

MUTUAL RELATIONS OF ITS DIFFERENT PARTS.

To the Editor of THE LANCET.

SIR:—If the accompanying paper be deemed of sufficient interest, its insertion in an ensuing number of THE LANCET would oblige yours obediently,

C. W. B. LANE.

33, Leicester-square, June 1st, 1839.

The nervous system is the great secondary source and primary medium of life, and as such must have a pre-eminent claim on the attention of physiologists. Its aspects are most varied, and it is only of late years that philosophic research has been directed towards it. Within the last quarter-century, indeed, greater progress has been made in attaining knowledge relative to the localisation of nervous function than had been accomplished since the days of Hippocrates up to the commencement of that period. Still this interesting subject is involved in obscurity; and complexity rather than simplification often results from our researches. Yet, though our knowledge can never attain perfection on this, or any other subject, we cannot tell how closely we may approximate to it; there is always ground to be gained. Though inquiry may have no immediate result, yet, if chronicled, it is sure, sooner or

later, to throw light on a subject, when its bearings are apprehended. Experimentalists have done much to benefit the segment of science in question, yet I cannot but consider that an immense amount of needless animal suffering has been inflicted, and much odium justly incurred by those engaged in physiological research. I protest against the infliction of torture without an adequate object in view. The resort to experiment attended with animal suffering should be regarded as an exception to a general rule, and not the ordinary line of procedure. We have at present an immense mass of facts, and of these we should do well to avail ourselves, rather than seek to add to them by wanton and aimless cruelty.

The following views have resulted from much consideration on the subject of nervous function. They are but suggestions which, if of any worth, may perhaps be rendered available by some one whose ability and opportunity are more commensurate to his zeal in the cause of science.

Organic impressibility, or primary perception of stimulus, is the first essence of life; even as cohesion, gravitation, bulk, &c., must have being to render an object subject to physical influence. The result is organic action, the simplest product of vital stimulus. Thus, at the primary human origin, we have deposition of molecules, in which are centred a susceptibility of impression. Under a certain allotted excitement they enter into motion, assuming a certain definite arrangement and peculiar activity. Action itself, then, constitutes a stimulus additional to the extrinsic one; and the result gradually becomes more and more complex. The circulating system arises out of the punctum saliens; the alimentary canal gradually extends itself; they keep pace with, and are doubtless subservient to, organic nervous growth. But, while function rapidly supervenes on organisation in the ganglionic system, which is in intimate connection with the constituents of the human frame, it is otherwise with that part of nervous organisation by which man has direct communication with external agents—the cerebro-spinal system. The activity of this has a later date. It is not till the consummation of the first stage of human development that its activity becomes marked. The attainment of this point is the signal for birth, for the commencement of independent existence. A new phase of life begins, and the being enters on its preordained career of mortality. Dr. Marshall Hall has discovered that the spinal centre is endowed with the power of exciting involuntary action to a certain extent in the muscles of animal life; and this is the case previous to birth, the conformation of the spinal chord being once completed. To this is owing the motions of the fœtus in the mother's womb during the latter months of child-bearing.

This is the amount of vitality which is possessed ere the child exists *per se*; circulation, nutrition, and absorption, are in action; secretion is established, and the alimentary canal is fully developed. At birth a vast revolution takes place in the animal economy; a more extended stage of action is entered upon. Dr. Marshall Hall's excito-motor system now displays its most important function: the indirect stimulation of cold air is reflected to the respiratory muscles, causing contraction thereof, and, consequently, inspiration. Thus, we find Sir Charles Bell's respiratory tract included in the excito-motor system. By the establishment of respiration a different channel for the blood is formed, and it assumes a more stimulating influence. The peristaltic action of the intestines becomes more energetic, as likewise the secretive functions generally. A constant chain is constituted by the excretions, which, however, is greatly exceeded by the supply, and general corporeal increase naturally results. As the action of the heart becomes more vigorous the brain assumes more energy. Now become the centre of nervous power, it receives external impressions on the nervous periphery, and originates voluntary motion, which functions constitute animal life. Their susceptibility is at first vivid, but transient in a high degree, which state gradually subsides, and is replaced by greater permanency of impression. This is the foundation of the axiom, that frequency of impression blunts perception but improves the judgment. When a certain animal development is attained moral and intellectual faculties supervene on cerebral organisation, exerting a varied influence on organic and animal life.

Thus, both in the organic and animal nervous systems, sensibility precedes activity, and there is some correspondence between sensation and action. In the organic nervous system action is proportioned to sensation, and is its necessary consequence. In animal life there is also connection between sensation and action, but which widely differs in its development from that of organic life: sensation originates and influences action, but has no invariable result, for the impression being conveyed to, or originating in, the brain, that organ will always control and modify the result; constituting a laboratory where analysis of the impression is performed with varied results, often merely mental. In both organic and animal life the current of innervation is originally from sensation to motion, but the reverse of the course subsequently becomes common.

Thus, we have two distinct nervous systems in the animal frame. How are they combined? How is the unity of the body constituted? I believe that there is a communicating system of nerves, which we may

denominate sympathetic, by which connection is established between organic and animal life, and to this medium of relation we will now particularly turn our attention. The excito-motor influence is but a partial result of the sympathetic action, which links together the organic and cerebro-spinal systems, developing itself simultaneously with them. The stimulus of organic impression, varying in nature and degree, may be transmitted to the spinal centre, the influence of which induces involuntary contraction of certain muscles of animal life, Respiration and vomiting afford striking instances of the action in question, which is yet more demonstrated in states of disease: hydrophobia, tetanus, &c., in fact including all involuntary actions which can occur in health or disease. Now, on the other hand, I beg to suggest that on a certain degree or variety of organic action being instituted the impression is conveyed to the sentient nerves of animal life, and there developed. The point of development being mostly a surface adjacent to the seat of disease, the site thereof is generally pretty accurately indicated. Hence the sensation of a replete stomach. So, in a severe cold, *i. e.*, a state of general congestion, there is aching pain over the entire surface of the body. Under the present system we attribute the locality of pain in disease to the affected organ itself, though no sentient nerves can be traced in its structure. Why should we attribute to a living solid in a state of disease a property of which there is not a trace in a state of health? The sensation arising from disease frequently is not even confined to its vicinity; for example, in hepatic and renal affections. Again, in complaints of the internal organs, how exquisitely tender an adjoining surface may become, though no degree of compression is exerted which could produce physical effect on the diseased organ. Search through the vast range of morbid states, and in the above simple theory will be found some elucidation of the mystery yclept sympathy, which has ever engaged the attention of medical philosophers.

In conclusion we will glance at the most marked points of sympathetic action. It is, I believe, much complicated generally with the nervous system of animal life, but the especial function may, perhaps, be fairly assigned, also, to some particular nerves.

It appears established that the fifth pair is the great medium of sensation to the face. From it, according to Mr. Mayo, some muscles derive their stimulus to action. But the chiefest function of the nerve in question is, I consider, sympathetic. Its very arrangement would tend to suggest this view of the case. It communicates with every cerebral nerve, also with the superior spinal ones, and no less with the nerves of organic life. By the intimate connection it establishes the various nervous functions are closely associated. The relation of the facial muscles with respiratory action is hereby constituted, and more or less sensation from any distant irritation ensues. Hereon depends the expression of countenance in connection with the mental condition; the portio dura is the immediate cause of facial expression, but it derives its stimulus to action from the fifth pair. That the division of the fifth nerve is not to any great extent attended with loss of expression of countenance is owing to the previous freedom of inosculation with the seventh. Why does the destruction of the trifacial nerve involve more or less promptly that of the eye? In the first place, that organ, and the apparatus therewith connected, have no longer due relation with external stimulus, of which, consequently, the impression is no longer regulated. Again, connection with the organic nervous system is partly destroyed, as we find its nerves accompanying the fifth pair. These observations will afford some explanation of the injuries of vision accruing from lesions of the nerves in question, which has excited doubt, whether they were not, in reality, partly the agents of vision.

The eighth pair, probably, comprehends the only purely sympathetic nerves in the whole frame, the only ones in which sympathy has an isolated development. The glosso-pharyngeal nerve is connected with the facial, pneumogastric, and portio dura, and is afterwards distributed to the muscular and mucous structures of the tongue and pharynx, where it becomes intimately connected with the fifth and ninth pairs, and doubtless the extremities of the organic nerves. I suppose it to be by the glosso-pharyngeal that the impression of taste is transmitted so as to originate nausea: at its bidding that the muscles of the tongue and pharynx associate themselves in the act of deglutition: through this medium that the state of the secretive surface of the tongue becomes correspondent with the state of the stomach and other portions of the alimentary canal. The pneumogastric is the great communicating medium between the nervous centre and the viscera. They derive their ordinary functional activity probably from the organic nerves, but it is through the pneumogastric that extra stimulus is transmitted, and the viscera are associated in function. The stomach is, however, its great centre of development, from which we may trace its greatest source of action. Thus irritation of the stomach is transmitted to the brain, and reflected in diverse forms through the various sensitive nerves, chiefly the fifth. The action of the viscera may, through the pneumogastric, give rise to irritation of the mucous membrane of the nose, mouth, throat, &c. Idiopathic or symptomatic irritation of the brain is, on the other hand, conveyed to the stomach, and

there developed. The various condition of the nerves of organic action in the various viscera are, I believe, transmitted by the pneumogastric to the animal nervous system, which reflects the impression in sensation, varying as it originates in spasm, morbid secretion, &c. Through the same medium it is that digestive derangement is often displayed in cardiac and pulmonary affections, which are often, I firmly believe, rendered idiopathic by treating them as such, while yet only symptomatic; for there is much truth in the axiom that the cause and cure of disease may be derived from the same source. The primæ viæ are the most general starting point of disorder and disease; and this we should be prepared to expect when we consider that here is exerted the most constant, variable, and influential relationship with external physical agents. From being, as it were, the centre of sympathy, it is that the stomach affords the best medium for medicinal impression. The liver always participates to a great extent with any gastric affection, and thereby shares in the production of impression on the nervous centre. I deem the excito-sentient system, as we may term it, to be the medium of developing those anomalous pains which are experienced in the intercostal regions, often the source of as much perplexity to the medical attendant as annoyance to the patient. In themselves they afford but little facility of diagnosis, for they may occur equally severely from trifling functional excitement, as from fatal morbid process. An effort has been made to attribute the great mass of the complaints in question to spinal irritation, whereas, in general, that is but one point of the course of morbid action. I conjecture the function of the spinal accessory nerves to be the association of the organic condition of the brain with the function of the spinal chord.

ON THE

GENERAL UTILITY

OF THE

ERGOT OF RYE IN OBSTETRIC MEDICINE.

By JOHN JOHNSTON KELSO, *M.D., Lisburn.*

As a great division of opinion exists in the profession respecting the general utility of the ergot of rye in obstetric medicine, some considering it as either superfluous, or not unattended with some degree of hazard in almost any case; some admitting its general utility in a particular class of cases, characterised by special conditions, alone; and others advocating its indiscriminate employment, as an almost infallible means, not only of considerably accelerating, both speedily and safely, parturition, but also freeing the patient of some formidable casualty liable to supervene upon that process. Amid such discordant sentiments, I will, I hope, be excused in venturing, through the enlightened columns of THE LANCET, to state the result of my limited experience on this important question, in the sincere hope of contributing, however meagrely, to the removal of some of those prejudices and highly-erroneous impressions which, unfortunately, surround it; and the tracing out, in outline, of a sure and solid basis of scientific practice. The observations I am about to make, I should here just mention, are founded on personal experience, derived, as this is, from upwards of 500 obstetric cases, in which I have employed this medicinal substance myself, and that of some professional friends, whose extensive field of observation as to its effects entitle their candid statements to every respect.

Agreeing, as I principally do, in the pretty generally received opinion, that the ergot acts through the medium of the uterine nerves, which it stimulates to the setting up of that peculiar but well-known action to which it gives rise; the inquiry into the appropriate conditions which specially indicate its administration, and circumscribe its unquestionable utility, resolves itself, in my opinion, into the four following considerations:—1. The description or class of cases in midwifery most suited to its proper use; 2. The stage of labour which indicates its employment with the best prospect of benefit; 3. Its effects on the mother, as regards both her immediate condition, and her recovery after delivery; 4. Its immediate effects on the life of the child.

Premising that, with Desgranges, I consider the activity of the ergot to be in proportion to the minuteness of the powder and its recency, the form, not overlooking these particulars, in which I prefer exhibiting it, is that of decoction, continuing the ebullition at the least for three minutes. A scruple, or half a drachm, thus prepared, constitutes the common dose, which is to be repeated or not, according to circumstances, at the interval of an hour or an hour and a half, till, at the utmost, three such doses be administered, and which, if it be retained by the stomach, will generally be found to succeed. Should this, however, prove inoperative, a larger quantity will not only, most likely, be useless, but perhaps prejudicial, or even deleterious to the system.

I.—*The Description or Class of Cases in Midwifery most suited to its Use.*

Women of a nervous, or sanguineo-nervous temperament, are, I think, the most apt to be influenced by the ergot; while, on the other hand, those of a melancholic or lymphatic constitution are generally insusceptible to its action. But, other things

apart, peculiarity of constitution can never, in itself, be indicative of its propriety or impropriety; it is sufficient for us to be aware of the fact, inasmuch as, in prescribing the remedy, it will prove a key to the prognosis. In women, however, of a lax and irritable fibre, its characteristic action is so constantly displayed on its exhibition, that it occurs in perhaps every ninety-nine cases out of the hundred, and almost always with the most unexceptionable result, as respects the personal safety of the mother, both immediate and contingent, without, at the same time, in the least endangering the life of the child. Let me not be misunderstood; I am speaking not of first but of subsequent labours, and more especially of that large class of them in which its great practical value is indisputable.

On the contrary, in the great proportion of first confinements, as well as in a few particular constitutions, of which no experience can afford distinctive indications, its operation is generally either null, or only of a spurious, exhausting character, which may not only not be unattended with some degree of hazard of the occurrence of an accidental lesion in the mother, but, as experience has proved, with almost certain destruction to the life of the child. Sometimes, it is true, the ergot will here prove a means of setting up vigorous action, where this has been previously irregular, or so-called *false;* while, on the other hand, it will occasionally be found to change natural, though perhaps tedious action, into the most excruciating, continued throes, accompanied, or not, with sickness at stomach and violent retching, which requires the instant exhibition of an opiate. Knowing all this, I am always extremely cautious in resorting to it in this class of cases, in which, as a general rule, it is inadmissible.

II.—*The Stage of Labour which indicates its Employment with the best Prospect of Benefit.*

Some patients, as has been already remarked, are much more susceptible of its good effects than others of apparently similar constitutions, to whom, *cæteris paribus*, it may be judiciously prescribed at an earlier stage of the labour with the happiest effect. Leaving out of account cases of first confinements, in which, as we have just seen, its use is generally inadmissible, when called into a patient I adopt the following mode of procedure:—Having ascertained the period at which the pains may have first set in, their character as to regularity of invasion and apparent force, I proceed to institute an examination *per vaginam*. If the presentation be natural; the os uteri dilated to the size of a crown-piece, and thin and dilatable; the parts lax and properly lubricated; the pains tedious and inefficient; and the labour having been progressing, say for some five or seven hours, with these indications, which are strictly essential to its prudent and effective administration, I unhesitatingly have recourse to the secale cornutum; and, provided the temperament be favourable, which is of moment as far as the inducing action is concerned, invariably with the most satisfactory result. Indeed, under circumstances such as these, its effect will, as is well known, be sometimes almost magical, while it all but invariably forms a certain means of safely accelerating, to a greater or less degree, the termination of the process.

True it is, a violation of some of those conditions just laid down may occasionally be unattended by any adverse issue, nay, by a very favourable one. Thus, for instance, in the thick and undilated os uteri, attended with protracted and abortive sufferings,—a state of things which by no means unfrequently occurs,—its expansion may occasionally be greatly promoted, and natural pains induced, by the exhibition of the ergot; but the evil effects on the life of the child are too common to warrant a frequent recourse to the practice. Its aid, therefore, should never be resorted to until the os tincæ be properly dilated, "and," in the words of Professor Burns, "everything ready for delivery." I should not here omit to mention that some, with Dr. Burns, are of opinion that rupture of the membranes should generally precede the use of this remedy. This, however, I conceive to be unnecessary, as it appears to me, as well as many others, to be equally safe and effectual, whether these may, or may not, have previously burst; hence I never entertain the rule.

III.—*Its Effects on the Mother as regards both her Immediate Condition, and her Recovery after Delivery.*

Its physiological effects are too well known to require any notice, in this place, from me; and were its great practical value only limited to that of diminishing the liability to uterine hæmorrhage, a property of which it appears to be possessed in an eminent degree, it would, on this account alone, well deserve our most serious consideration. Thus, of those 500 cases, in which was exhibited more or less of the ergot, there occurred in all only three of uterine hæmorrhage; two of which occurred between the birth of the child and the throwing off of the placenta, and the other about an hour after the separation of the secundines. In none of them was the loss of blood extensive, and they all readily yielded to the appropriate means. Quite different is the result of my experience as regards the occurrence of this casualty where the ergot was not exhibited. Here the cases of flooding, which were, at the least, doubly more frequent, were, when they occurred, certainly more

formidable, as well as attended by, relatively, a greater amount of loss of blood.

But, in a just and impartial review of its real utility, I cannot omit referring to a case of my own, in which an affection very closely resembling the third form of puerperal mania of Dr. Burns, supervened on the exhibition of, in all, about 3iij of the ergot, but in separate doses, and in a period of eight hours. It occurred in the person of E. C., of a nervous temperament, who, in March, 1835, was confined of her first child, after a tedious labour of about twenty hours duration. The first symptoms, which announced themselves on the evening of the day of her delivery, were those of feverish excitement, characterised by a quick, though not full, pulse; heat and dryness of the integuments; thirst; headach, &c. There then occurred wandering of the ideas, and an incontrollable desire of getting up and going abroad. Oftentimes she talked, not on one, but on various subjects, and generally pretty correctly; but again, at other times, she was taciturn and pensive. The eyes were wild and vacant, and the countenance altogether inexpressive. The lochia were natural and abundant, but the abdomen, though supple, appeared rather distended. In the course of some days the secretion of milk, though in less quantity than usual, appeared, and the febrile phenomena in great degree subsided; but the wildness and incoherency of manner and expression, which frequently burst forth in violent, and occasionally long protracted paroxysms, requiring generally manual restraint, persisted, with various alternations, for the better and worse, for a period of about ten weeks, at which time reason began to be restored. During the whole of this time she was the subject of frontal headach, of greater or less intensity; inappetency, and a great and general vitiation of the entire secretions, which it was very difficult, in any degree, to correct. The secretion of milk became suppressed after the lapse of the first week of her illness, and the general debility became, during the progress of the affection, considerable. After various kinds of treatment, which was, of course, modified according to the ever-changing condition of the phenomena, she ultimately recovered, and is now in perfect health, having since borne two children. I thought both then, and often since, that the rather large amount of the ergot which was altogether exhibited in this case, constituted a primary and chief element in its causation, but whether correctly or not I leave it to my senior and more intelligent brethren in the profession to determine. But, be this as it may, it very forcibly impressed me with a sense of the propriety of always exercising a due degree of caution in its administration; and the more especially as, if it is to succeed, a quantity within the limits of perfect safety, will generally be found adequate to the production of the desired end.

IV.—*Its immediate Effects on the Life of the Child.*

The great diversity of sentiments which unfortunately prevails on this all-important point, arises, I conceive, in great measure, from the proper or improper use of the ergot; and, on the one hand, I can no more doubt that its indiscriminate and intemperate employment has but too often been productive of fearful results in this respect, than, on the other, its judicious and cautious use has, by accelerating the termination of the process, oftentimes averted a fatal issue. The mortality of children in these 500 cases amounted in all to *forty*; or 12.5 per cent. Of this number *thirteen* were dead for a longer or shorter period previously to delivery, as was manifestly indicated by more or fewer of the incipient symptoms of putrefaction having, in all of them, obviously set in; in *three* the umbilical chord, the part which had first descended, had ceased pulsating, from the destructive pressure of the head on the brim of the pelvis, intercepting the circulation in it; and *four* were cases of breech presentation, attended by tedious labour, and more especially difficult and tardy protrusion of the head, with, of course, a fatal compression of the funis, in each of them; thus reducing the real mortality to just the one-half of the above proportion, or to four per cent. It is to be observed, that in this calculation cases of first confinements, in which, as is known, the relative mortality of the offspring is much more considerable, are not included, inasmuch as the aid of the ergot was here, for the reasons just stated, but rarely resorted to.

The experience, too, of some other medical gentlemen of my acquaintance, and especially that of my friend Mr. M'Donald, of this town, whose rather extensive opportunities of observation in this department of medicine, entitles his statement to every respect, goes to corroborate, almost to the very letter, that of my own, as following on the employment of the medicinal agent in question.

In conclusion, I would most respectfully observe, that the highly interesting question of the general utility of the ergot of rye, in obstetric medicine, can obviously only be satisfactorily arranged, not by frothy declamation or intemperate assertion of either the friends or enemies of the practice, but by a dispassionate and calm appeal to, and deductions from, accurately recorded facts, founded on its varied and extensive employment.

Lisburn, June 13, 1839.

MR. SMITH'S DISCOVERY

OF THE

TRUE NATURE OF THE ERGOT OF RYE.

In the beginning of October, 1838, after having for several years doubted the truth of the prevailing opinions as to the nature of ergot, Mr. Smith, of the Royal Botanic Garden, Kew, observed a certain fluid upon an ergotic spike of the elymus sabulosus. Meeting with Mr. Quekett a few days afterwards, he gave that gentleman some of the fluid for examination, and forthwith submitted other portions to the microscope himself. About a week subsequently Mr. Quekett wrote to him that he had "discovered the whole secret," for that the fluid contained small solid particles, which, no doubt, were the seeds or sporidia of the fungus called ergot. Mr. Smith having in the meantime noticed these same solid particles, replied that he was sure this idea was incorrect, and that the solid bodies found were themselves the articuli (so to speak) of a fungus which, by penetrating the grain, converted it into the substance known as ergot.

On the 6th of November Mr. Smith read before the Linnæan Society a paper, of which the following abstract appears in the Society's "Proceedings."

"Mr. Smith, like many others, had supposed that the ergot of rye was an organised fungus, growing in the florets of the rye and other grasses; but, in the early part of October, his attention was particularly directed to the subject by observing several large drops of a brown-coloured fluid suspended from a spike of a species of elymus, in which were several full-grown ergots, and others in a younger state. The fluid was viscid, and had a saccharine flavour. On subjecting a portion of it to the microscope, it was found to be full of innumerable, minute, oblong, transparent bodies, varying from the 3000th to the 7000th of an inch, and resembling the sporules of fungi, and slightly bent, having a somewhat indistinct spot at each end. On applying a drop of water to a full-grown ergot multitudes of these bodies became disengaged from its surface, and issued from the cracks or longitudinal fissures which generally characterise the fully developed ergot. These bodies imparted to the water a milky appearance. He observed the same bodies on ergots of all ages and sizes, and on opening the unexpanded flowers of ergot bearing spikes, they were met with in abundance on the different organs, especially on the anthers; for, on cutting an anther, and applying water, they were seen to float out along with the pollen. They were also observed on the ovarium, and in little clusters on the hairs and feathery stigmata. These bodies are found to accompany the ergot through all its stages, and are present even before the fecundation of the ovarium, at least before the discharge of the pollen, and consequently before there is any appearance of an ergot; they, therefore, cannot be the sporules, but must be the cellules of the minute fungus itself. On examining an ergot, the surface, before being moistened, presents, under the microscope, the appearance of a thin, whitish, primrose crust, which, on the application of moisture, speedily separates into myriads of the minute transparent cellules before mentioned. On viewing the ergot in the dry state, under the microscope, the primrose appearance of the crust will be found to arise from these bodies being united together longitudinally, forming slightly elevated spiculæ, but crowded underneath, and forming a kind of crust. These cellules, so united, present the appearance of slender-jointed filaments, either simple or branched, in which state they occur likewise on the anthers. Mr. Smith regards these cellules as the articulations of a minute filamentous fungus, which is developed in the early stage of the flower, and propagating itself by the separation of the joints, and impregnating the soil or the perfect seeds of the grass, which, on germination and subsequent development, carry up some of the reproductive matter of the fungus, which again developes itself in the flower, in the manner that Mr. Francis Bauer has shown to take place in the propagation of the smut and grain-worms in wheat."

At the reading of this paper Mr. Quekett was present, and said to the author, "You are wrong, I am sure you are wrong; and I am sorry you should have read this paper, for I intend forwarding one to the 'Medical Gazette' in support of my own view of the matter."

On the 4th of December (no communication having taken place between Messrs. Smith and Quekett in the interval) Mr. Quekett read an essay at the Linnæan Society, which he then and there described as a sequel to Mr. Smith's, and in which the notions of the latter as to the constitution of ergot were adopted. He even said that he had at first, after naming the new fungus *ergotætia*, thought of adding the specific name of "*Smithii*," in honour of the discoverer; but that he ultimately preferred the term *abortans*, as having a twofold reference, to the grain and to the human ovum, both of which the ergotœtia abortans appears to hinder from reaching maturity. In the abstract, however, of Mr. Quekett's paper which appears in the Proceedings of the Society, Mr. Smith is mentioned only as having seen the new fungus in the anthers of ergotic grasses; and in an essay written expressly for the "Medical Gazette," in which it appeared on the 19th of January, as "abridged from a paper read before the Linnæan," &c., Mr. Quekett does not

allude to Mr. Smith in any way; although not only did this gentleman first suggest to him the true nature of the substance in question, but actually furnished him with the "recent specimens" by which alone Mr. Quekett was enabled to test and confirm the truth of Mr. Smith's discovery. That the former may, by subsequent observation and research, have developed some minutiæ which do not appear in the paper of Mr. Smith, is what might be expected, and need not be denied; but the originality of the discovery (viz., that ergot is not a fungus, but a diseased state of grain occasioned by the growth of a fungus not previously detected) is with Mr. Smith, and, in common justice, ought to be distinctly so recorded. Mr. Smith, though not a public teacher, nor as yet, perhaps, known beyond the walls of the royal gardens or of the Linnæan Society, is highly appreciated by those who are acquainted with him, as an indefatigably-industrious observer; and, surely, the least that is due to such a man from his more distinguished fellow-labourers in science is to leave him undisturbed in the possession of that honest fame which attaches to all original investigations.

F. B.

June, 1839.

DENTAL DROPPING TUBE.

To the Editor of THE LANCET.

SIR:—Although we must all acknowledge the value, and almost perfection, of dental surgery in the present day, still resort will, necessarily, often be had to different remedies for the alleviation of toothach. These remedies being, for the most part, of an acrid or highly stimulating character, often occasion considerable inconvenience, and also injury, from their coming into contact with the gums, or neighbouring teeth, in the act of applying them.

Having found a little instrument (a modification of the dropping tube, of which I subjoin a sketch), of great utility, and very convenient, I venture to recommend it, through the medium of your valuable Journal, to the profession.

It consists, simply, of a glass tube, having a bulb at one extremity, and bent and drawn to rather a fine point at the other.

The fluid to be used, say creosote, which now seems to be generally and deservedly the favourite, is introduced into the bulb by driving out the air with a spirit-lamp, in the manner that thermometer tubes are filled. (It is desirable that the bulb should not be more than one-third full.)

When required, the bent extremity is to be inserted into the hollow of the tooth, and a little of the creosote allowed to pass into the tube. On applying the warm hand to the bulb the expanded air will drive the drop, or drops, gently on to the orifice,

through which it will pass to the bottom of the cavity.

The advantages of this little instrument consist—First, in the ease and surety with which the remedy can be applied at the *bottom* of the diseased cavity, and immediately *upon the nerve*. Secondly, in being able to avoid any unnecessary contact of the application with the gums, or neighbouring teeth. And, thirdly, in its convenience.

A stock of the remedy is contained in the bulb, and is ready for instant use; and so delicate and sure is its action, that when the bulb is cold and the hand tolerably warm, the approach of two fingers towards it is enough to drive on the fluid. For the application of nitric acid it will be found exceedingly convenient. I am, Sir, yours respectfully,

J. D. JEFFERY, Surgeon.

Sidmouth, May 28, 1839.

CONGRESS
OF
MEDICAL MEN IN DUBLIN,
TO SUPPORT A PROPOSAL TO CONVERT THE
ROYAL COLLEGE OF SURGEONS
OF THAT CITY INTO A
NATIONAL FACULTY OF MEDICINE FOR IRELAND.

(*Abridged from the "Dublin Medical Press," of June 5, 1839.*)

A GREAT meeting of physicians and surgeons of Ireland was held on Wednesday, the 29th of May, at the Royal College of Surgeons in Dublin, and attended by large numbers of medical gentlemen from all parts of the country. At one o'clock Professor MACARTNEY moved that RICHARD CARMICHAEL, Esq., do take the chair, which was adopted by acclamation.

Dr. MAUNSELL was appointed Secretary.

The CHAIRMAN then rose and said,—Gentlemen, we meet here to-day numbers of the most respectable members of the medical profession, delegated from all parts of Ireland, because a great reform is necessary. We are daily sinking in public estimation, notwithstanding that medicine has, during the last quarter of a century, made the most important advances, and we pay the most assiduous attention to our duties. Some, even of our own profession, may pretend to doubt this statement; but we must acknowledge that there is a greater falling off in the rate of remuneration during the last few years than can be attributable to any increase in the value of money. Happening to obtain a tolerable share of practice in early life, and in better times, I have become accustomed to the usual *honorarium*—a custom which it is not likely I shall now forego, to the injury of my junior brethren. Therefore, I cannot vouch for the depreciation of our profession from my own experience, farther than this, that we are now seldom rewarded with the double *honorarium* in consultation, even when held upon personages of rank and fortune. But the miserable rate at which medical attendance is estimated by the public in their payments to the juniors of the profession in Dublin, and to both seniors and juniors in all other parts of Ireland, is unfortunately too well known. I will not offend your ears by repeating what I have heard on this subject, but shall notice briefly, as another sign of the times, the wretched remuneration afforded to medical men for attendance upon dispensaries, the governors of which seem to vie with each other to reduce the salaries to the lowest minimum, and render the duties of the situation as harassing as possible, by issuing constant orders for visits in distant quarters on the same day, amongst which they seldom omit those upon their own immediate dependents. The dispensary system in this country is most laborious and degrading, and I believe of but little advantage to the poor. Whenever a dispensary becomes vacant, candidates are seen flying about in all directions, beseeching the "sweet voices" of shopkeepers, squireens, agents, and ministers; thus contending for a paltry emolument and degrading duties, that sink the profession, in no slight degree, in the public estimation. This cause of our degradation will, in all probability, be removed as soon as the poor-laws come into full operation. It is true that our profession is overstocked. But this is only a partial cause of the great competition. Constituted authorities, such as coroners, lawyers, and even judges, have of late assumed the habit of treating the members of the medical profession, whom inquests and crown prosecutions bring before them, with disrespect, and even contumely. These insults usually occur in the country, or if they do sometimes also in Dublin, they are in general only inflicted on pupils; for the physicians and surgeons of the metropolitan hospitals will not sacrifice their time at inquests and crown prosecutions. In the country, however, medical men of high reputation frequently are dragged from one end of the county to another, to attend a prosecution, and then are remunerated with an order to receive a pound for each day, payable in six months. If they remonstrate, they only meet with contumelious language from underlings, and appeals to the bench are seldom more successful. But these great officers take their tone from head-quarters; for all Governments, whether Whig or Tory, seem to regard medical men as beings of an inferior grade. For instance, when the cholera ravaged this island both barristers and medical men were commissioned by the Government to the different counties, the one to register freeholders, the other to combat that frightful epidemic. The first, though in general so young as perhaps never to have viewed a brief, were rewarded with five guineas per diem, besides travelling expenses, while the medical men, working night and day, many of them falling victims to their duties, had doled out to them ten shillings per diem, afterwards somewhat increased, upon urgent remonstrance; but in no instance, no matter how distant from Dublin the field of his exertions, was more than forty shillings a day, without travelling expenses, given to any medical man, notwithstanding that in one town alone (Sligo), four medical men in a few days fell victims to this direful disease. Recollect, also, that the few offices of rank or emolument which appertained to the medical profession have, one after another, been, within these few years, suppressed. The situations of surgeon and physician-general, of state-surgeon and state-physician,

no longer exist. Even the paltry salaries which were allowed for half a century to the surgeons of the House of Industry, and its hospitals, were discontinued, because it was discovered that they had some trifling emolument arising from pupils, although the greater part of that emolument, which never exceeded 100*l.* in the year to each, was devoted by them to the formation of a museum. But this contemptuous disregard on the part of the Government was encouraged by the meanness of some members of our own profession, who volunteered to do the duty without salary. This instance alone is sufficient to evince the necessity of union to protect our interests, repress malpractices, and encourage an honourable *esprit du corps* amongst ourselves. There is not on earth a class of men, who perform the divine precepts of Christianity with more disinterested devotion, and yet these very men are despised by Government, and deprived of every situation which might serve as a stimulus to their ambition. How different is the conduct of other governments to the medical profession! In France, Prussia, and the different German States, they are consulted on everything which concerns the public health, and, in consequence, fill the high situations of privy councillors. If Government had condescended to consult our profession, could such abuses as exist in our cotton manufactories have destroyed annually thousands of miserable children? If the advice of medical men had been sought, would the liberties of our city be constantly a focus of infection from the filth with which that district is eternally choked? If the Government had condescended to consult our profession, would the Walcheren expedition have taken place at a season of certain destruction. But while we find our information thus neglected, and the few honourable appointments which belonged to us one after another suppressed, we witness every day new situations conferred upon the bar. What is the reason of this palpable injustice? Simply this, that the one profession is disunited by absurd distinctions and perpetual dissensions, while the other acts in unity, establishes a centre, and has a most useful surveillance over its members. This unity it is which makes the bar respected, feared, and even courted, by the Government. Gentlemen, let us take the hint before it is too late. Proclaim loudly the absurd folly of the artificial division of the healing art into surgery and physic. Seek to reunite parts of a system which could only have been separated by fraud. The education of physicians and surgeons should be precisely alike. In large cities some will incline to the practice of physic, others to that of surgery. But in smaller communities both branches must be practised by the same persons, and for this the proposed reform will amply qualify them. The very practice of physic itself has received its most important improvements from surgeons. I need only mention Cullen, Hunter, Abernethy, Bichat, and Laennec. The celebrated W. Cullen acted as surgeon's mate in the Navy, in which, amongst the turmoils of a cockpit, he laid the foundation for that knowledge of physic which is displayed in his celebrated "Materia Medica" and "First Lines," works which influence the practice of physic even to the present times. Bichat's exposition of the animal tissues is of the utmost importance in forming pathological views of disease. The great modern staff of physicians, the stethoscope, was conferred upon them by a surgeon. In the treatment of inflammation of all internal organs, which probably comprises three-fourths of the diseases which fall to the physician's lot—for instance, the brain, the lungs, the heart, the viscera of the abdomen and pelvis, and the investing membranes of those organs—all are now treated alike, and, after bloodletting, mercury in every instance is resorted to as the most efficient remedy. And from whom did physicians learn the great utility of mercury in the treatment of inflamed organs? From surgeons. The utility of it (in this country at least) was first practically established by the late John Cunningham Saunders, a surgeon, in the treatment of inflammation of the iris. Its first exhibition, most probably by a surgeon, was in peritonitis, its second in pleuritis, and last, though not least, in arachnitis. And yet, notwithstanding all these unanswerable arguments for the reunion of the two branches of the profession, the College of Physicians have actually declined to unite with us. If pride prevents them it is foolish. If apprehension of loss of property, or of four professorships, or the lucrative situations of librarian and registrar, and two or three hospital appointments, with but thirty persons (of which the College is composed) eligible to them, they have no reason to fear; for at the conference held with them we distinctly stated that in order to facilitate the union, the College of Surgeons was willing to make the most liberal sacrifices for ten years, or until the two bodies were by time perfectly amalgamated; and we made this concession, although the entire College of Physicians, including honorary fellows and licentiates, scarcely amounts to one hundred; while the College of Surgeons, including its members and licentiates, among whom are 250 physicians, amounts to upwards of 600, and the number in Ireland belonging to other colleges who would be admissible into the proposed united college, probably amounts to two thousand three hundred more. Is it rational that thirty gentlemen should be permitted to prevent the accomplishment of this great national object? If it be the apprehension of loss of property which influences them, I can assure

them that the funds of the College of Surgeons are far more than those of the College of Physicians, bequeathed to them by Sir Patrick Dun. Our fixed capital, in buildings, library, museum, &c., is at least equal to sixty thousand pounds. Our fluctuating income, besides, averages 3000*l.* per annum. Our property and income far surpass theirs. But since they have refused to unite with us let this College of one hundred members remain unmolested, like Old Sarum, and let us, the College of Surgeons, backed by the remaining physicians and surgeons of Ireland, petition the Legislature for a new charter of union. The College of Physicians have advertised in all the newspapers, in answer to our College, a resolution,—"That no beneficial results, either to medical science, or the profession at large, can follow from the proposed union; but, on the contrary, consequences equally detrimental to science and the public." But I should beg to inquire how it happens that this College, seemingly in direct opposition to these words, a short time before they made this declaration, appointed Dr. Harrison, a member of the College of Surgeons, educated as a surgeon, and not belonging to their College, Professor of Anatomy, to deliver clinical lectures on the Practice of Medicine, in Sir Patrick Dun's Hospital, their only school of clinical medicine; and yet they aver that not only no beneficial results can arise from the union of physic with surgery, but they anticipate from it "consequences equally detrimental to science and the interests of the public!" I come now to the consideration of the third estate in the realm—the apothecaries. The evil example of England has so embarrassed this part of our subject, that we cannot be surprised that Mr. Warburton should relinquish, in despair, the Herculean labour of regulating the profession for the public benefit. His difficulties were owing to the conflicting testimony of the members of the three adverse branches of the profession; but while practitioners in physic and surgery should be united into one body, the public interests require that pharmacy ought to be distinct from both. Here the absolute necessity of the division of labour influences this important question. The apothecary or pharmacien should be a good chemist and a good botanist. He ought to make in his own laboratory all the preparations employed in medicine; but the generality of apothecaries, on the contrary, resort to the wholesale druggist, who is himself supplied from wholesale chemists; and thus the same laboratories which furnish the various manufactories with coarse chemicals also supply the apothecaries with those medicaments which they themselves ought to prepare with the utmost accuracy. The adulteration of various medicines thus is a cause of frequent failure in the practice of physic. A member of the Apothecaries' Company, Mr. Donovan, in a late letter to the Apothecaries of Ireland, proposes an application to Parliament for a new College of Pharmacy, for the due cultivation of the pharmaceutic art, and the restriction of apothecaries to their own peculiar province. Mr. Donovan writes,—"Pharmacy, as a profession, does not exist in Ireland; it is not cultivated in Ireland. It is little understood here, and, while the apothecaries of France and Germany teem with discoveries, those of the British empire produce absolutely nothing, but adopt the efforts of their brethren abroad." * * "The apothecaries of other countries are, for the most part, men eminent in intellectual endowments, and scientific acquirements. They are the philosophers of the age. They have enriched science with its chief treasures. They are respected throughout the world. How do they differ from you? Are they more intelligent or persevering? No; but they follow their legitimate profession. Can we, ourselves, increase our knowledge of our own profession, while, morning, noon, and night, we are occupied in practising a different one?" Dr. Kane, in a paper on Pharmacy in Germany, published in 1836, says:—"The majority of the leading apothecaries whose acquaintance I was so fortunate as to make were doctors in philosophy. In fact, the apothecary is as usually a doctor in philosophy as the physician is a doctor in medicine. He becomes the fellow-labourer, but not the rival, of the physician. His education is equal, though in a different path. His origin is as high; his income is as considerable; and he is received in general and learned society on the same footing as any other man possessing equal property and information. If we look to any meeting of the German Association of Scientific Men we find an independent section for pharmacy; and we likewise see that the great mass of the work of the chemical and botanical sections is accomplished by persons who, if not apothecaries, were originally intended to be such, had not their talents and love of science carried them to a higher sphere of action." Contrast him with his aspiring but degraded confrére in Great Britain, "the counterfeit presentment of two brothers." If the English apothecary is abroad all day, enacting the parts of physician and surgeon, while the senior apprentices are preparing to catch hasty glimpses at dissecting-rooms and hospitals, who is to compound the prescriptions? The answer must be, the junior apprentices—mere boys—ignorant of everything pharmaceutical, even of the characters and appearances of the medicines which they have to compound. Hence the numerous mistakes which are every day occurring. A letter lately received from Mr. Valentine Flood affords a case in point. Mr. Flood says, in it,—"I feel it a public

duty to relate the following case. I am a medical practitioner, residing in London, and having had dyspeptic symptoms, sent at night to an apothecary for thirty grains of Plummer's pill, to be divided into six pills. On the following morning I swallowed one, and, shortly after, symptoms of poisoning set in. I immediately suspected the pills, and, having broken one, I had little doubt that the pills consisted of extract of belladonna, and, on sending to the apothecary, was informed that my suspicions were perfectly correct; his apprentice (a boy) had taken a jar having belladonna on one side, and an old mark of Plummer's pill on the other. At the end of about three days the nervous symptoms had gone off, but were followed by very aggravated dyspepsia, which obliged me to leave my business and remove to the country. I shall withhold the apothecary's name, but I pledge myself to satisfy Mr. Warburton, or any committee of inquiry, as to the accuracy of this statement. Many sudden deaths, not accounted for, have occurred in this way."—Had not Dr. Flood been a medical man, he would, probably, have gone on with the pills. I attended, some years since, a lady, on account of a cancerous disease of the uterus. I prescribed for her ten grains of the tartarised iron, three times a day. After a week I saw her again, but so sadly reduced in strength that her dissolution, which was inevitable from her disease, was hastened by several months, in consequence of the severe vomiting occasioned by the medicine, which, on examination, I found to be the sulphate of zinc (white vitriol), instead of the preparation of iron directed. But the mischief does not stop here, for even mere druggists now have become doctors and surgeons, and prescribe with impunity. But we are told that this is a necessary inconvenience attendant upon the advantage of living under a free constitution. In matters respecting political medicine it would be fortunate were our rulers to consider the freedom of the people less, and their health more. But I suspect that this is a mere pretext for raising a revenue by stamp duties. Gentlemen, from the views I have taken I trust you are convinced of the necessity of the reunion of physic and surgery, and of the separation of pharmacy from both. But many people will turn on you, and observe, families *will* have a cheap medical man, whom they can call upon at all hours, a kind of male gossip, often taken out of his bed at night on the most trivial occasions; besides, he must be advanced in years, and married. These observations were made to me by a physician in high practice. A paper signed "Verax," in the eighth number of the "Dublin Medical Press," adduces incontestable facts, which show that the employment of the cheap apothecary is actually the most extravagant; and as to the objection that elderly physicians and surgeons cannot be had on moderate terms, I am sorry to observe so many temples whitening without filling the pockets, though these meritorious confrères, perhaps, would be well satisfied at receiving a guinea for every second or third visit, or to be paid annually a regular stipend for attendance upon families, who would thus be secured from over-dosing. And as to the necessity of being married, let me assure the public that far greater security is afforded them in the moral, religious, and honourable principles of well-educated gentlemen. The general practitionership which has been long established in England, is only on the threshhold of this country, and will, I trust, be stopped in its progress by this meeting, before it obtains a firm footing. Its true nature was accidentally well explained to me the other day by a pupil of the Richmond Hospital, a native of South Wales, who came to me to have his hospital certificate signed before he returned home to follow the *craft* of a general practitioner. I inquired of him how gentlemen in this department were paid in Wales. His reply was, a shilling a visit in the town, but for visits in the country half-a-crown the first mile, and a shilling for every mile afterwards. He added, however, with much naivetè, "My master, to whom I was apprenticed, thought but little of this source of emolument; it was by the medicine he chiefly lived." "Draughts, of course?" I inquired. "Yes," he replied, with great emphasis, "and plenty of them!" Gentlemen, this miserable system we must not adopt in this country. All our institutions must not assimilate with those of our elder sister. Let us reject what is bad in everything which relates to the arrangements of the English for the treatment of disease. Even their hospitals are the worst conducted in Europe. For, notwithstanding the immense income and ample accommodation of some of them, there is no arrangement of their patients; surgical and medical cases are jumbled together in the same wards, so that it is not unusual to see a bad case of typhus in the adjoining bed to that of a fractured leg. Their mode of attending those hospitals is certainly not such as it would be desirable to imitate. The hour of visitation is usually at noon, the period of the day when professional men are in most demand for private practice; and the attendants hurry over their hospital duties with a precipitation most indecorous, and injurious to patients and pupils. The latter call their attendance "walking the hospitals;" *galloping* would better express it. We are not bound by the Union to follow our wealthy sister in everything bad as well as good. Far better would it be to follow the United States of America, which is every day

adding to its unincumbered institutions the useful practices of the older countries, while it rejects those that are injurious. Gentlemen, I shall not longer occupy your time. On your adoption of the resolutions which shall be submitted to you depends your future respectability. I have no doubt that our example will stimulate our brethren in England to exert themselves to recover their respectability. They have been trodden under foot, and rolled in the very mire. Think of the degradation inflicted on them by the Poor-Law Commissioners, who, taking advantage of the necessities of needy medical men, form contracts for medicine and attendance upon the poor, under the disgraceful system of tender, or auction, knocking down the contract to the lowest bidder, totally regardless of the professional qualifications or moral character of the person with whom they conclude their *disgraceful* bargains, so that attendance in this way has been obtained at the low rate of even threepence per head by the year, in a district of eight or nine square miles. When the poor-laws come into operation in this country, I trust we shall be prepared to refuse, with contempt, such degrading offers, by a well-organised union. A system of organisation will be submitted to you, for district associations, all holding regular communication with this College, the centre of union. We have a weekly periodical, ably conducted, ready to advocate our rights, and when any of our body is unjustly assailed, we shall be well able to repel the aggressor. In all those arrangements, vested rights, or sources of emolument possessed by individuals at present, are to be esteemed inviolate. We propose alterations affecting those only who in future will enter the profession, whilst we hold out advantages of no minor consideration to those who are actually in practice. Even though we fail in the next session of Parliament, or the session afterwards, in obtaining this new charter, uniting the two branches of the profession, we shall, sooner or later, be fortunate; and I feel no small degree of pride that this College should come forward in this liberal manner to set an example to the other chartered bodies of the empire. When combined we can exert a powerful influence in the return of members to Parliament. Let us support only those candidates who pledge themselves to advocate our cause. Gentlemen, be assured that it is only by union that we can support our just position in society, preserve our purity, resist oppression, and maintain our rights.—(*Very great applause.*)

Professor PORTER rose to propose the first resolution. It formed the foundation-stone of the objects for which that meeting was convened. The principle of unanimity was first adopted by the College of Surgeons, without one dissentient voice, and he was happy that it was responded to throughout the country. (*Hear, hear.*) The claims of medical practitioners in Ireland justified them to the fullest extent in demanding legitimate protection. Mr. Porter concluded by moving,—

"That the physicians and surgeons of Ireland feel that it is not unreasonable for them to expect from the Legislature protection which shall be equal to that which is afforded to the members of other liberal professions."

Sir JAMES MURRAY, in rising to second the resolution, expressed his admiration of the liberality with which the College of Surgeons threw open its portals to the profession. He regretted that any opposition should operate against the objects of the present meeting. But he trusted that it would subside on reflecting that the object of the College of Surgeons was to give to every man the privilege to render himself eligible to be elected to infirmaries and other public institutions. (*Hear hear.*) The gentlemen present at that meeting had not taken part in it as a political matter. As to himself he was not guided by any selfish motive, for he belonged both to the Dublin and Edinburgh Colleges. Nor did he wish to shoulder out the poor apothecaries. He felt equally interested for each of the three branches; but the measure then contemplated would prevent the recurrence of disputes, and stop the settlement of paltry differences of opinion by a case of pistols or pulling noses. (*Laughter.*) He would tell the profession that it was in their own power to get what they now sought for. Where was there a situation of emolument in the country to which any medical man was appointed if a lawyer could be got to stuff into it? Every situation under the new Poor-Law was given to lawyers, although from the avocations of a medical man, and his knowledge of the condition and necessities of the poor, he was fifty times better qualified to discharge the duties than any Blackstonite. There was the office of Coroner, which was to be given only to persons possessing 200*l.* a year, an office which ought to be filled by medical men, yet into which persons were thrust without sense or intelligence, or sufficient knowledge to ascertain whether the patients upon whom inquests were held were dead or alive. The learned gentleman, after urging the necessity of having one central tribunal, said that they might expect protection till the day of judgment, as the countryman waited till the Liffey flowed by, unless they acted on their own behalf.

The resolution was unanimously agreed to.

Dr. KIDD, of Armagh, said he could detail several instances of hardships to which the profession was exposed. On one occasion a most respectable member of that Col

lege was called upon by the Coroner to make a post-mortem examination; he got an order for two guineas, which was subsequently cut down to half that sum at the special sessions. In another instance the same practitioner was offered 2s. 6d. by the War Office, for examining a soldier, to ascertain if he was fit for service The learned gentleman proposed,—

"That the services of medical men were constantly enforced in the administration of public justice, without any, or with insufficient, provision being made for their remuneration."

Professor HART seconded the resolution, which was passed unanimously.

Dr. MARTIN, of Waterford, observed that the grand jury in his county never paid any medical man for his attendance on inquests, unless there were suspicions of murder. In one instance, in which he refused to give evidence unless he was paid, the Coroner said he would do without his evidence, although it was absolutely necessary.

Dr. MACARTNEY said that they had all heard of the bundle of sticks which, when tied together, it was impossible to break. The union recommended he cordially approved. Had the lawyers been divided they would not monopolise as they did all the patronage of the country. It was said that he (Dr. Macartney) was opposed by the College of Surgeons at one time, and that he had suffered by the opposition. True; but he had not that day come to rake up bygone differences. He was reproached with having gone over to the College, but such was not the fact, for they, on the contrary, had come over to him. (*Cheers.*) He had at all times recommended an union of the two branches of medical science, and a complete medical education; and he did hope that the College of Surgeons would now act fairly and honestly. He had recommended to the College of Physicians to discuss the possibility of union, but he was left in a minority of three to twenty-two. He would propose,—

"That it is the opinion of this meeting that the cause of all these evils is to be traced to the existence of divisions and separate interests among the members of the medical profession; and that their effectual remedy is to be sought for in a permanent union."

Professor HARGRAVE seconded the resolution. He was sure that union would be most advantageous to them. The College of Surgeons had, so far back as fifteen years ago, sent a petition to Parliament for protecting the interests of the profession at large, and whatever steps they subsequently took were under the directions of high authority, and as sworn corporators, though they were punished as individuals for doing their duties as members of the body. Many of the gentlemen who composed that meeting did not require the advantages which would result from their exertions; but it was for the advantage of the children of those men, who, when they came to practise, ought to find it honourable and remunerative. (*Applause.*)

Dr. O'BEIRNE said that one would suppose that it was not necessary in the nineteenth century to advance any proofs of the truth of the proposition contained in the resolution; but it had been distinctly denied by the King and Queen's College of Physicians. They not only contended that physic and surgery should be kept divided, but even asserted that their union would be detrimental to science and the public. But the public had become the arbitrators between them, incompetent as they were to decide their differences. The unity of physic and surgery was drawn from the history of their profession. The professions, at their commencement, were closely allied, and they were now separated. Physic and surgery were united for more than sixteen centuries, and were separated for ecclesiastical reasons only. They were reunited in France in 1795, and subsequently in Germany, in consequence of their intimate dependance on each other, and so they continued in those countries. Hippocrates did not treat the professions separately. In the whole of the Greek, Roman, and Arabian schools, both professions were united, and continued united up to the thirteenth century of the Christian era, when the separation was produced by the Council of Lateran, in 1216, from ecclesiastical reasons, and not reasons connected with the theory or practice of medicine. (*Hear, hear.*) An intimate knowledge of physic was absolutely necessary to the surgeon. Suppose a violent bleeding of the nose. The surgeon examines the pulse, countenance, and general health. The bleeding was an effort of nature; if stopped his patient would die either apoplectic or paralytic. He allows it to go on, life is preserved; a different course might have killed him. Suppose another case; inflammation of the eyes; some of the causes of that inflammation are connected with syphilis, rheumatism, or scrofula. The surgeon prescribes accordingly; but if not acquainted with those diseases, he will not relieve the patient. A surgeon in croup must examine the lungs. In the false croup distinct and remarkable intermissions are observable. The person at one period is nearly strangled, and in a few minutes afterwards is free from all difficulty of breathing. The surgeon knows that no such symptoms characterise croup. He therefore treats the disease in quite an opposite way, and with success. A strangulated hernia is attended with inflammation of the bowels. Upon his accurate knowledge of this would depend the time which he would give to reduce the hernia. Frequently he

finds that fractures will not unite; he looks for the cause; it is traced to syphilis, scurvy, or some other source. Malignant tumours frequently present themselves, necessarily connected with a constitutional infirmity or disease. And the intimate knowledge of surgery is equally essential to the physician. Mistakes are made by them in consequence of deficiency of information in this practice. In intermittent fevers treatment may be ineffectual till they detect a stricture of the urethra. In inflammation of the bowels, caused by hernia, frequently the cause of the disease has been overlooked; not unfrequently a person presenting himself for operation for fistula is attacked with disease of his lungs, and therefore the operation is not performed, because it would only hasten dissolution. The most important and lasting improvements had been made in medicine by surgeons, or by physicians who had been surgeons. Hunter was a surgeon. Not 50 years ago physicians were totally ignorant of the laws which the different membranes obeyed under disease, but were now daily acting upon the important principles established by Bichat, a surgeon. Laennec was a surgeon. Was any physician ignorant of the splendid expositions made by Sir Charles Bell? Why should they not also allude to the labours of their present distinguished chairman, on a very multiform and intractable constitutional disease? He alluded to his original and interesting views of the hydatid origin of tubercles, which might well be called the seeds of consumption. But physic and surgery were also confessedly united in that department which connected medicine with the administration of the laws. He meant medical jurisprudence. Moreover, all attempts had failed in defining the limits between the profession of physician and surgeon, because God and nature had made both professions one. (*Hear, hear.*) He (Dr. O'B.) declared it to be his conviction that both the advancement of medical science, and the best interests of the public, loudly called for an incorporation under one College of Medicine. These opinions were not new. He had strongly advocated them before the Parliamentary Committee, of which Mr. Warburton was chairman, in 1834. He would notice one more great source of their grievances. Although the members of the Colleges in Ireland were upon the very best terms, the strongest feeling of distrust had existed between them for years, because one body believed that the other could not press any legislative purpose without drawing a counter-petition from the other. This misunderstanding should be removed, for such dissensions tied up the hands of the Government, and prevented them from doing the profession justice. He would propose the following resolution:—

"That the true basis of union should be a similarity of studies, pursuits, and interests; and that the physicians and surgeons of Ireland now assembled, do declare that medicine and surgery are one science and one profession, and that their separate practice was merely an expedient division of labour, having no reference to education or to professional interests."

Dr. Jago, of Kinsale, seconded the motion. He anticipated many beneficial results from co-operation. A society was established ten years ago in the county of Cork, and since its establishment the profession in that district had greatly increased in respectability and importance. (*Hear.*)

Dr. Bullen, of Cork, said that the practical measures for carrying the great principle of union into effect urgently required to be immediately commenced. The first question which was naturally asked by every provincial practitioner was, what immediate gains were to be obtained. In endeavouring to carry out the contemplated union each must make some pecuniary sacrifice. To survey their present position they should look back and study their relations with the College of Surgeons. Till within the last few years certain regulations were required by the College with regard to apprentices, in order to qualify persons to become members of that body. The College had altered those regulations, but the profession in Ireland was suffering still from the apprenticeship system as originally introduced. Those regulations required that to become a member of the College they should serve a regular apprenticeship to a College surgeon. This drove the great mass of persons to obtain their education in the Scotch and English schools, and denationalised the Irish College. The consequence had been, that out of 3000 medical practitioners in Ireland, only 600 were members of the National School of Surgery. (*Hear, hear.*) What was the intention of the meeting that day? It was that the Irish College of Surgeons, feeling the time, and the disposition of the Irish to join a national institution, founded upon equitable principles, had consented to found an Irish National Faculty; and the surest way for that institution to preserve even its existence, was to call within its fold all classes, and *no longer* sacrifice the interest of the many for that of the few. (*Hear, hear.*) There was another advantage of union. The resolutions called upon the Legislature to enable them to obtain an Act to effect medical educational reform. But that question involved other interests. They had to consider the medical institutions of England and Scotland, and they never could attempt to carry any measure which would exclude the regularly educated graduates of other British schools. (*Hear, hear.*) It would ill become them, within those walls, to carry out that principle of exclusion which they

themselves so unanimously condemned. Therefore, the movement that day was not exclusively Irish, but one that should be responded to by all the schools of England and Scotland. It might be apprehended that they were only endeavouring to cloak another monopoly by the proceeding which they had undertaken; the best way, therefore, to avoid such a suspicion was to put forward that the only test of competency with them was, that the degree giving a license to practise should be a *bona fide* proof of intellectual capacity and acquirements. If they adopted this principle no government could refrain uniting with them in medical educational reform. (*Applause.*) Dr. Bullen then proposed:—

"That it is our opinion that a legislative measure should be sought, to unite the medical profession of Ireland into a corporation upon such principles as shall constitute them one National Faculty, thereby identifying the great mass of provincial practitioners with their metropolitan brethren."

Professor WILLIAMS seconded the motion.

Dr. ORPEN had advocated these views for many years. In consequence of them he had long abstained from attending the College, for there were persons in it whom he did not like to oppose. But now the College did not seek to maintain merely its own interests in Dublin, but the interests of the entire profession. He was exceedingly happy that the president had animadverted upon the lawyers,—a set of men who made laws to benefit themselves, and spent their time in helping people to evade the law, or in getting people out of difficulties incurred by contravening the law, degrading every other profession. There was lately a meeting of barristers held to resolve on practising at the quarter sessions, and taking half-guinea fees, for they found that their profession was over done. There was beginning between them and the attorneys the same quarrel as between the physicians and surgeons, and the practising apothecaries. He heartily wished them success in their quarrel. Dr. Orpen concluded by moving:—

"That steps be at once taken to form district medical associations throughout Ireland, composed of all practitioners in medicine holding degrees or diplomas from any of the legally constituted colleges, corporations, or universities, who are of irreproachable moral and professional character, and who are not engaged in retailing drugs, or compounding the prescriptions of others."

Dr. JONES, of Waterford, seconded the resolution. He was rejoiced to witness the College come forward this day on behalf of the profession. He was instructed by the whole of his brethren in Waterford to give their concurrence to the proposed union. The course they were now pursuing would eventually spread to England and Scotland. The principles they were advocating prevailed, in a great degree, throughout the Continent of Europe.

Dr. PHELAN (a Poor-Law Commissioner) had before taken an active share in the affairs of the medical profession; but he happened *now* to be in a position in which it would be unbecoming to take the same share which his anxiety for the profession would incline him. He must acquire more information, and in that meeting he could not fail to obtain some. Reference had been made to tenders being sometimes the mode of appointing medical men to workhouses. He would say that there would be no tenders in Ireland, but certain reasonable fixed salaries, without tenders. He would go further, and state that he believed it would be given up in England. (*Hear.*) Moreover, he was glad to be able to tell them that in each workhouse there would be a good infirmary, with fever wards. (*Hear.*) The Chairman had observed that the Poor-Law Commissioners used the tender system in England. Now, long before the new Poor-law Bill passed, the tender system was very much practised; therefore it became part of the working of the law, and was not the act of the Commissioners; but it was less and less practised.

The CHAIRMAN was happy to hear that the disgraceful system was not to be extended to Ireland.

Dr. CRANFIELD, of Enniscorthy, dwelt on the improper manner in which elections to dispensaries and infirmaries were carried on. He was himself a candidate on one occasion, and though he had a large majority of the subscribers in his favour, the treasurer and secretaries managed to close the doors against him, and admit their own friend. He took legal proceedings against these parties, but after going to upwards of 90*l.* costs, the proceedings all fell to the ground. He proposed:—

"That the members of the district associations shall elect officers from among themselves, and nominate delegates to represent their interests at the general meetings of the profession, and obtain local information regarding all matters of medical police; settle disputes among their own members; and communicate with a central metropolitan Council."

Dr. CANE, of Kilkenny, seconded the resolution. He complained of the great hardships they were exposed to from the slight remuneration afforded them by coroners, or its total absence in Ireland. He should return to Kilkenny, and tell his brethren the gratifying news, that they were unanimous that day in erecting a great temple of surgery and medicine.

Dr. JACOB presented a sketch of the proposed constitution of the College which was

contemplated. It avoided details, which would come more properly when they had settled on principles. Let them solicit suggestions from every quarter to improve the plan. He could easily contemplate opposition from gentlemen possessing existing rights, who were not pleased to divide them with others. He would be told that the scheme was fanciful, but all they wanted was the cordial consent of the Royal College of Surgeons, and the active adherence of the members all over the country. He was told that the University and other Colleges would oppose them; so they might. If there were a certain number of names to a petition, he defied them. The Oxford, Cambridge, and Dublin Universities exerted themselves against a charter for the London University, and yet it was accomplished. United Irishmen might accomplish anything. Twelve years ago, when an alteration in the College was proposed, gentlemen shrugged up their shoulders and said, "What a set of fellows! you attempt an impossible thing." But what did they see within the last twelve years? They were accused of being innovators, levellers, disturbers of men's rights, but their object was that no man hereafter should pay 150 guineas to get into this College. They then passed a law that no man should be compelled to serve an apprenticeship, but should merely answer certain examinations. The result was that the College was completely opened. In accordance with the changes of public feeling, sacrifices must be made. Dr. Jacob proposed the following resolution:

"That the following principles should be held in view in constructing the constitution of the new College:—

"1. Fundamental regulations with regard to education, to be permanently established.

"2. Compliance with them to be rewarded with the license of the College, conferring equal rights on all holders.

"3. All persons so licensed, to be members of the corporation, after a certain period of probation, on evidence of irreproachable moral and professional character.

"4. Every individual so enrolled to be free to act in the College, in every corporate capacity.

"5. A general meeting of the whole College to be held in May, each year, to which district associations may send representatives, the business being to elect an executive council, &c. to govern the College during the year, at all times sitting and voting with open doors.

"6. A general meeting to be called at any time by the Council, or upon a requisition signed by at least twenty members."

"The title of this College shall be the Royal College of Medicine and Surgery in Ireland, uniting medicine and surgery into one faculty."

Dr. Dunn, of Drumsna, seconded the resolution.

Dr. Henry (Fellow of the College of Physicians), said that the sentiments which he was about to utter were his own, not those of the body to which he had the honour to belong. He agreed in the views which pervaded the meeting. He had himself, in 1829, drawn out a plan of a medical university, and waited upon almost all the medical men in Dublin to ascertain their sentiments on the subject; and, although some dissented, yet most of them were in favour of such a measure. They all, however, declared its impracticability. This great meeting refuted that. The respected Chairman was one upon whom he called at that period. He then thought the measure impracticable; he does not think so now, but was a principal means of rendering it practicable, necessary, unavoidable. Dr. Henry had also called, in 1829, on the late Dr. Cheyne, that enlightened physician, who entered into the subject with deep interest, and handed him some suggestions on the subject, though he said that the execution of the plan was beset with so many difficulties, and opposed by so many interests, that he despaired of living to see its accomplishment.

Dr. Tuohill said that he was one of the first individuals who entered the College of Surgeons under the provisions of the new charter, being at that period a graduate in medicine of two years standing; as soon as he gained a voice in its councils he advocated a measure which was similar in principle and application to that now suggested. Dr. Tuohill now proposed the following resolution:—

"That at the first formation of the new College Faculty, all persons holding degrees or diplomas in medicine or surgery from any of the Colleges or Universities at present legally authorised to grant the same, who have been five years in the practice of their profession, not following the business or profession of a retail druggist or apothecary, and who can produce evidence of irreproachable moral and professional character, shall be enrolled as members of the Corporation, upon payment of a sum not exceeding 20 guineas."

Dr. Reardon seconded the motion.

Dr. Bewley, of Moate, rose to propose an amendment to the resolution. To the expediency of admitting other practitioners into the College without a previous examination he must demur. The College enjoyed a reputation superior to that of all other similar bodies, owing to the known severity and publicity of its examination. Many members of other medical bodies were equally well educated, but the public had not the same security for their being so. The examination at many medical colleges was notoriously a mere farce. Provided a candidate produced a certain number of *certificates* (only so many receipts for money paid

to certain persons countenanced, or, as the phrase is, recognised, by the College), and deposited the price of his diploma, he had little to apprehend from an examination. What, then, was the Irish College called upon to do? Neither more nor less than to put it on a level with those Colleges which conferred their diplomas on insufficient examinations. It is proposed that we shall bestow ours without any examination at all! We are called on to acknowledge this day that our position hitherto in society has been a false one—one continued lie. And for what equivalent are we to make these sacrifices? We are at present a very powerful body; students from all parts of the British empire flock to our lecture-rooms. We possess this magnificent building and a noble museum. We enjoy (unjustly, perhaps), a monopoly of the county infirmaries. "All this," said Haman, "availeth us nothing so long as I see Mordecai the Jew sitting at the king's gate." I am not averse to the union of the two branches of the profession. No man can more ardently desire to see this most foolish distinction abolished. The end is undoubtedly good, but against the means I respectfully protest, and support the following amendment:—

"That it is expedient that the College of Surgeons in Ireland should possess the power of conferring the title of Doctor of Medicine and Surgery only on those who submit to a searching examination."

Dr. JOHN JACOB, of Maryborough, observed with some warmth, that the observations of Dr. Bewley were treated with uncalled-for disregard. They were worthy of marked attention. He would not, however, say that gentlemen should be required to pass an examination previous to being admitted into the proposed College, because he felt how utterly impossible it would be for himself, at this period of his life, to submit to such an ordeal; but he would say that some other efficient test should be instituted as to professional fitness.

Dr. JACOB, of Dublin, in reply to the observations of his brother, strongly recommended gentlemen who prided themselves on their acquirements and qualifications, not to suppose that others who enjoyed qualifications from a different source were inferior in knowledge. He had been for ten years the instructor of the very class of practitioners to whom allusion had been indirectly made, while demonstrator to Dr. Macartney, and he declared that those gentlemen were distinguished for knowledge and ambition for honours which the exclusive regulations of some of the institutions did not permit them to obtain.

Dr. MAUNSELL said it was proposed that the road of entrance to the medical profession should be that of education alone, at the highest possible standard, an object which could never be effected so long as sixteen or seventeen rival corporations competed with each other in a Dutch auction, as to which should sell its license to practise. The only remedy was to unite medicine and surgery into one body. In the new College no one desired to give indiscriminate admission to all who might apply. A test must be devised, and the opinions of their own and other colleges should be sought, from which a safe measure might spring. The test of examination could not be made to apply. It was not to be supposed that gentlemen of twenty, or thirty, or ten years' experience, would undergo any examination. They ought not to do so, and he (Dr. M.) upon principle would himself refuse to submit to any such test. (*Hear.*) The original resolution was unanimously agreed to.

Professor BENSON then moved,—

"That persons who have not been five years in practice, shall, on paying not exceeding 20 guineas, be enrolled as licentiates of the College, to be enrolled as members in five years from the date of their original degree or diploma, without further expense."

Dr. M'CORMAC, of Belfast, seconded the resolution; he for one, if Dr. Bewley was satisfied to undergo an examination upon admission, would submit to the same test. (*Cheers.*)

Dr. BLACKWELL, of Dunleer, proposed,—

"That members and licentiates of the Colleges of Surgeons and College of Physicians (provided the latter body join the union) shall be exempted from any such payment."

Dr. BRADLEY, of Castlecomer, seconded the resolution, which was agreed to.

Dr. MACDONNELL moved,—

"That persons now enrolling their names, shall, with the College, constitute an association, to continue until the new charter shall be obtained."

Seconded by Dr. LANGLEY, of Nenagh. Agreed to.

Dr. NUGENT, of Cork, then proposed (seconded by Dr. HEALY, of Ennis), the immediate election of a Provisional Council, &c.

Dr. O'GRADY, of Swords, proposed,—

"That Richard Carmichael, Esq. be President of the Provisional Council, and Dr. Maunsell Secretary, and that the Council consist of the Committee of Correspondence of the College of Surgeons, with the deputies of the local associations now existing, or hereafter to be appointed, with power to add to their number."

Seconded by Dr. COLOHAN, of Galway, and agreed to.

Surgeon WHITE then proposed the fifteenth resolution, on which much misrepresentation had gone forth, producing feelings of an unpleasant nature. It would set them right with the apothecaries. The first proposition of this resolution was, "that encou-

ragement should be given to a class of scientific apothecaries." Inasmuch as their present emoluments were derived principally from their own prescriptions of their own medicine, if a future race were to be prevented from prescribing, the chief source of their subsistence would be withdrawn. But then how was encouragement to be given? Why, by incorporating a College of Pharmacy. One of its by-laws would no doubt be that the education and qualification of the candidates for its diploma should be of the very highest order. The public would have the services of a far higher order of pure apothecaries, and the profession would be more limited as to numbers. The apothecaries are too numerous by three-fourths —the quantity of pharmaceutical business is inadequate to support them in comfort and respectability. The College of Pharmacy would no doubt secure to the apothecaries of Ireland the exclusive sale of medicines, a source of profit at present more in the hands of the grocer than the apothecary. The resolution contemplated the prevention of medical practitioners from compounding the prescriptions of others, but provided for general practitioners compounding their own. The Irish apothecary had been a person who may or may not possess a knowledge of the healing art. He concluded by moving,—

"That encouragement should be given to scientific apothecaries (whose time would be exclusively devoted to the preparation and compounding of medicines), by the establishment of a College of Pharmacy; by preventing medical practitioners from keeping shops for the sale of drugs, or compounding the prescriptions of others, and by affording to regularly-educated apothecaries an exclusive right of dealing in medicinal articles."

Seconded by Dr. KINGSLEY, of Roscrea, and agreed to.

Dr. WALSH, of Tullamore, moved,—"That we disclaim all intention of interfering with vested rights now enjoyed by any individuals."

Dr. MORRISON seconded the resolution, which was adopted.

Dr. TABUTEAU moved, "That the establishment of a relief and widows' fund be recommended to the Provisional Council."

Seconded by Sir A. CLARKE, and agreed to.

The best thanks of the meeting were then given to Mr. Carmichael, the Chairman.

In the evening the principal delegates and friends dined together at Radley's Hotel, Commercial-buildings, Mr. Carmichael being President.

The cloth being removed, the following toasts were drunk:—"The Queen," "The Lord Lieutenant," "The Medical Union of Ireland," "Richard Carmichael," "The Irish College of Surgeons, and Dr. Jacob," "The Infirmary, Dispensary, and Army Surgeons, of Ireland," "The Physicians of Ireland," "The Medical Press," "The Western Medical Society, the oldest in Ireland," "The Provincial Medical Associations," and "The Stewards."

At twelve o'clock the party broke up, after an evening of undisturbed harmony.

On the following Friday, the President and Council of the Association waited on the Lord Lieutenant, to lay before him the resolutions adopted at the Congress, and to pray his consideration of them. His Excellency entered into the subject with interest. He was informed that it was not the object of the deputation to press for a reply to any request, but partly to anticipate any statements which might be made respecting the objects of the meeting by persons who did not coincide in its views. After a long conversation, the deputation retired, much gratified at their reception.

A CASE OF

INTUS-SUSCEPTIO,

WITH SEPARATION OF FIVE INCHES OF INTESTINE, FOLLOWED BY COMPLETE RECOVERY.

By JOHN FOX, *Esq., Surgeon, Cerne Abbas.*

HENRY DIMENT, æt. 16, residing in the parish of Nether Cerne, was taken ill on the morning of Monday, September the 10th. I first saw him at four in the afternoon. On inquiry, I found he had felt a little uneasiness in his bowels on the preceding day, with a slight sense of chilliness, and had taken a little milk and water, with a small quantity of bread in it, instead of his usual more substantial breakfast; that he had eaten some nuts on the 8th, but had, prior to the 9th, enjoyed an excellent state of health. He had passed a restless night, and had suffered from dull pain about the navel for a minute or two several times in an hour; had taken several ounces of castor oil without effect; bowels had not been opened for 24 hours. The tongue was slightly coated, but moist; he had no thirst; pulse 82, soft, and a little irregular; skin natural; urine of pale straw colour, and passed without inconvenience. The abdomen appeared somewhat tumid, but the pain, which he described as a "dull, griping pain," was diminished by steady pressure. I prescribed five grains of calomel and one grain of opium, to be taken immediately, and half an ounce of castor oil every four hours, until the bowels had been freely opened.

Sept. 11th, seven A.M.—He has passed a sleepless, restless night; the same kind of pain continues about the umbilicus, not increased on pressure; thirst more urgent; has rejected every dose of the oil; pulse 96, small and intermitting, but soft and

easily compressible; skin rather perspiring; tongue moist and white; urine natural; no anxiety of countenance; slight fulness of abdomen;—to take two grains of calomel, and eight of compound extract of colocynth, every four hours, until relieved, and with each dose of the pills a saline aperient in a state of effervescence, and if the pain and constipation continued, to be put into a hot bath for twenty minutes in the afternoon.

Eight P.M. Worse; skin hot; pulse 102, intermits every six or seven beats; face slightly flushed, but countenance not anxious; medicine and everything else taken during the day immediately rejected; was free from pain whilst in the bath, and dozed a little for half an hour afterwards. I examined the abdomen again; it was not more tumid; and I could not detect any unnatural fulness in any part, but firm pressure around the navel produced uneasiness; the pain had been constant for several hours, but more violent at intervals; there was no hernia; twelve leeches were ordered to the abdomen, to be followed by warm fomentations with scalded bran; a common purgative injection to be administered, and the hot bath to be repeated if necessary; and a pill containing one drop of croton oil every two hours.

12. He has passed a sleepless night; pain almost constant, and very severe at intervals; slight pain is also felt on pressure over the epigastrium; sickness continues; everything taken immediately rejected; belly rather more tumid; it appears somewhat fuller and harder about the centre of the *right* iliac region than on the opposite side; pulse 104, small, but soft, intermits every fourth or fifth stroke; urine rather scanty, otherwise natural; skin hot; tongue white, but moist, and there is little thirst; a blister, containing two grains of muriate of morphia, ordered to the epigastrium; the hot bath and injection to be repeated, as well as the pills, should the stomach be more disposed to retain them; a little soda water to be also given.

13. The hot bath had been used twice during the preceding day and night, with temporary relief to his sufferings; several injections had also been given, but they had been retained a few minutes only, and then returned unstained with feculent matter. The blister, with the morphia, appeared to have had a very beneficial effect on the stomach, as there had been much less vomiting, and six of the pills had been retained. The night, however, was one of great suffering, and the pain had gradually increased during the last six hours; at seven this morning he had severe bilious vomiting; the skin was of a more pungent heat; the tongue very white, but still moist; the thirst more urgent; the face flushed, and for the first time there was an expression of anxiety; the eye was bright, with dilated pupil; the belly more tumid; the pain also now much increased on pressure, and most severe about midway between the umbilicus and spine of right ilium; pulse 116, small, irregular, and somewhat sharp. Bleeding to faintness was performed with immediate relief; bath again ordered if the pain returned.

Calomel, five grains;
Comp. ext. of colocynth, five grains;
Opium, half a grain; every third hour, and if the bowels are not moved, an injection with spt. terebinth. to be administered in the evening. I now came to the conclusion that I had a case of intus-susceptio to deal with.

14. Has passed a more quiet night, with a little sleep, and appears to be under the influence of the opium; the vomiting, however, continues if any fluid be taken, even to the extent of a teaspoonful; the bowels have not been moved, are slightly tympanitic; pain less acute, but constant; the skin hot, with disposition to be moist; *tongue moist* and *less coated*; injection retained a few minutes only; pulse 122, irregular, small, and weak; pills, with calomel, colocynth, and opium, to be continued; if the pain increases, hot bath and fomentations to be repeated.

15. Has dozed a little during the night, but has never been free from pain; four doses of the pills have been retained; face a little flushed; countenance looks sunk, but *decidedly less anxious; tongue clean and moist*; skin burning hot and dry; pulse 136, very irregular, and small; occasional bilious vomiting, and is afraid to take more than a teaspoonful of fluid at a time, as it produces immediate vomiting; belly slightly tympanitic, and generally tender on pressure; the pills to be continued, and a liniment, with the *potass. tart. antimon.*, to be rubbed into the abdomen every four hours; if pain increases, an injection, with two drachms of *liq. opii. sedativ.*, to be thrown up, and in the mean time from two to three quarts of thin gruel to be forcibly injected.

16, seven A.M. Has passed a night of constant pain and vomiting, and had been wandering a good deal at times. I found him on the floor, resting on his knees and elbows, with a bason between his arms containing a large quantity of fœculent matter, and one large lumbricus; everything had been rejected, and he now complains more of the "dreadful sickness" than of the pain. The pulse was 140, irregular, and very small; skin dry and burning hot; tongue clean but dry; belly tumid as before, less pain on pressure; urine scanty, otherwise natural; countenance looking pinched and haggard; says he feels a little drowsy and confused. The opiate injection was given during the night, but returned immediately. Two minims of acid hydrocyan (Scheele's strength)

were directed to be taken every hour if the sickness continued.

Eight, P.M. Six doses of the hydrocyanic acid have been taken; the sickness is a little diminished, but still very distressing at times; eyes and countenance still more sunk; tongue dry and brownish; skin dry and burning hot; pulse 148, irregular, and small; belly tumid, but bears pressure better; had felt chilly for a few minutes during the day. It now occurred to me to give inflation a trial, but I certainly did not anticipate any good result from it, as the remedy came so late, and the case appeared so desperate; however, I thought it my duty, and I therefore immediately procured a bladder, and secured one end of it to the nozzle of a pair of bellows, and the other end to a common enema pipe, and having introduced the pipe its full length into the rectum, the bellows were set in motion by my pupil, and inflation forcibly but slowly persevered in for many minutes, until the poor boy complained of a disposition to "break wind," and said that his "belly was very tight." The convolutions of the intestines could be seen and felt distinctly, the arch of the colon most so; the tube was now withdrawn, and, to my great surprise and gratification, in about twenty minutes he said he felt as if he should soon have a stool; he was therefore lifted and supported upon the bed-pan, when he passed off wind in large quantities, which in a few minutes was followed by a very copious and liquid evacuation, containing, however, a few hard lumps. From this time the sickness ceased, and he expressed himself as being much relieved. A little soda-water and milk was allowed.

17. Has passed a tolerably quiet night, dozing at intervals; no sickness; perfectly collected; has had six more copious stools; tongue still dry and brown; pulse 118, very small, but more regular; abdomen tympanitic to a great degree; slight pain, on pressure, between the umbilicus and right ilium; enjoys the soda-water and milk; to have a little biscuit soaked in warm milk and water or tea, and to take a draught, with infus. of rhei and comp. tinct. of card., immediately.

18. Improving in every respect. Has passed an enormous quantity of flatus, and several copious evacuations; bowels less tympanitic; edges of tongue moist; pulse 110, soft, and free from intermission. A cup of weak chicken-broth allowed.

19, 20, 21. Has continued to improve slowly; the pain, on pressure, has daily lessened; bowels still tympanitic, have been freely opened, the stools are much too pale; the tongue still dry in the centre; the skin dry and hot, with pulse 104; has taken his aperient daily; the draught ordered to be repeated every morning, and to take the two following pills at bedtime, viz.,

Blue pill, five grains;
Comp. ext. of colocynth, three grains;
Ext. of poppy, one grain; two pills.

22. In the afternoon he was decidedly worse, notwithstanding the bowels had been freely moved, and the evacuations were healthy; the pain on pressure, too, was much less, but the pulse again mounted to 120, and was small and somewhat irregular without intermission; the tongue was dry, and the thirst urgent; the skin also hot and dry; his expression was anxious, and his present irritability formed a strong contrast to his hitherto calm and patient resignation. A saline draught, with tinct. of digitalis and tinct. of hyoscyam., was ordered to be taken every four or five hours, and I left him with a promise to see him again early the following morning, but at the same time with a firm impression on my mind that the case would even now prove fatal.

23. On my arrival this morning I was much gratified and surprised to hear that about six hours after I left last evening my patient's bowels had been very copiously moved, that he afterwards slept for nearly two hours, and that he expressed himself as feeling in every respect more comfortable; at the same time, however, his nurse told me she "supposed he would not last many days longer, as a large piece of his bowels had come away with one of his stools." I immediately examined the stool, removed the substance alluded to, and having carefully washed it, I found that the woman's suspicions were correct, and that it was indeed a portion of one of the intestines, with some of the mesentery still adhering. On visiting my patient I found his nurse's statement correct; he was in every respect more comfortable, although the skin was still hot and dry, and the pulse 112.

From this time the treatment consisted of mild aperients, with a gradual improved diet, and at the end of a fortnight, he had gained flesh and strength sufficient to enable him to remain up for several hours during the day, although the bowels remained slightly tympanitic, and a little pain was still felt on firm pressure. At the end of another fortnight he was able to walk about, and, with the exception of being somewhat paler than before, appeared in excellent health.

It is now nearly four months since his illness, and he continues in perfect health, the bowels acting regularly. He follows his usual occupation of milking, exercising horses, &c., without inconvenience.—*From the "Transactions of the Prov. Med. and Surg. Assoc.,"* Vol. VII.

STATISTICS
OF
PULMONARY CONSUMPTION IN ITALY.

LEGHORN.

Civil and Military Hospitals, 1833 to 1835.

Males	54	Deaths	23
Females	79	.. ..	40
	133		63

PHTHISIS.

Males	109	Deaths	46
Females	119	.. ..	43
	228		89

The mean number of deaths from phthisis in the Civil and Military Hospitals of Leghorn being 63, and the general mortality being 678, it results that the deaths from consumption are to those from all other diseases, as one to ten and three-quarters.

FLORENCE.

Hospital of St. Maria Novella, 1836 to 1837.

Males	3433	Deaths	519
Females	3121	.. ..	502
	6554		1021

PHTHISIS.

Males	109	Deaths	46
Females	119	.. ..	43
	228		89

The relative mortality of phthisis, and all other diseases in this hospital, was hence as one to eleven and a half.

ROME.

Hospital of St. John.

Admitted	2540	Dead	379

PHTHISIS.

Admitted	126	Dead	110

From which it would appear that the mortality of phthisis is as one to three and two-fifths of all other diseases.

NAPLES.

Average of three Hospitals.

Admissions, Male ..	3930	Deaths	935
.. Female	2278	.. ....	693
	6208		1628

PHTHISIS.

Admissions, Male ..	556	Deaths	369
.. Female	434	.. ....	326
	990		695

Hence the mortality of consumption is here as one to two and one-third.

In the military hospitals the mortality of phthisis to that of other diseases was as one to three and six-sevenths.

It results from an examination of these tables that the mortality of pulmonary consumption is not very high, either at Florence or Livourne; while, on the contrary, at Rome and Naples it amounts to one in three and two-fifths and two and one-third.

On comparing the documents from which the above general results have been drawn, with returns furnished from the French hospitals, we obtain the following data for comparison:—

LA CHARITÉ.

1835 to 1836.

Deaths	707
Deaths from phthisis	216

Here, then, the mortality of phthisis to that of all other diseases is as one to three and one-fourth.

HOPITAL NECKER.

1834 to 1836.

Admitted	2304	Died	241

PHTHISIS.

Admitted.....	136	Died	81

Proportion of deaths from phthisis one to three.

VAL-DE-GRACE.

1835 to 1837.

Admitted.....	7509	Died	329
Deaths from phthisis			27

Proportion of the mortality from phthisis to the general mortality of the Military Hospital, one to twelve and one-fifth.

If we compare the mortality from pulmonary consumption in the Civil and Military Hospitals of Naples and Paris, we shall find that the proportion is very much in favour of the latter city.

CIVIL HOSPITALS.

Naples, one in two and one-third; Paris, one in three and one-fourth.

MILITARY HOSPITALS.

Naples, one in three and six-sevenths; Paris, one in twelve and one-fifth.—*Bullet. de l'Acad. de Med., April*, 1839.

INQUEST AT MANCHESTER.

To the Editor of THE LANCET.

SIR:—As my character has been assailed in your last week's periodical, you will oblige me by publishing this reply. I am your obedient servant,

M. D. THOMPSON.

Staly-bridge, June 13, 1839.

I have thought it incumbent on me to reply to a slanderous and infamous report (as my character has been assailed in it) of a *coroner's inquest* (relative to a supposed case of infanticide and concealment of birth), held before John Hollins, Esq., and a

respectable jury, at the Drovers' Inn, Stalywood, on the 13th day of May ult.

Nearly two hours had elapsed in conducting the examination of the fœtal body, when the *Coroner* became impatient, and inquired of me why the medical men were so long, and what was necessary in conducting the examination of the case.

I replied that I did not consider it a case that required considerable time for examination; and that it was the duty of the medical men who executed the necessary examination of the case, to take into consideration the visible appearances of it; *i. e.*, ascertain whether or no it had suffered from violence, and the state of the umbilical chord; which chord, from the short period of the child's secular existence, if it had existed, would not have undergone any visible change, and, therefore, no visible change would have taken place in the umbilical arteries and vein, the foramen ovale,—here the Coroner interrupted me, who said that the jury did not understand anything about the foramen ovale, and so on; and, therefore, I must tell them something which they do understand. I then stated it was necessary to ascertain whether or not it had suffered from violence, and the state of the lungs.

The hydrostatic test for the lungs, in the present case, was a criterion to decide whether or not the child had respired.

Let it be understood that the fœtal body, was free from decomposition; that it had no appearance of exsanguinity; that it was found buried underneath its mother's pillow, and firmly enveloped in a flannel petticoat; and that the so-named medical man, who constituted one of the witnesses, attended the female during a part of the accouchment, and probably extracted the placenta.

I shall not notice the individuals here who wrote the aforesaid report, as it is useless.

THE LANCET.

London, Saturday, June 22, 1839.

THE "*Great Meeting of the Irish Medical Profession*" is well calculated to give an impulse to *Medical Reform* in England and Scotland. The proceedings of the meeting were highly honourable to the Irish character. It rarely happens that a body of men meet together for nobler purposes; and it is still rarer to see the frankness, energy, and spirit of self-sacrifice, which presided at the Dublin meeting. When has a corporation ever before manfully called its injured brethren together; relinquished its artificial privileges; abandoned purchased monopolies; and, under a deep sense of justice, and a clear-sighted perception of its real interests, laid the foundation of a popular institution? Has the Council of the Royal College of Surgeons in London done so? What has been the conduct of the self-elected Council, from the day its impudent, equivocating, wily President gave his evidence before the Parliamentary Committee down to the present time? Have the Council of twenty-one proffered to admit the members to any share in the government of the College? to any share in the distribution of the College funds? Have they employed those funds, and their chartered influence, to promote the interests of the profession? What has been their conduct in the business of the Poor-Law? In the protection of the public from quackery? In the promotion of anything advantageous to its members or useful to the nation? The Colleges of Physicians and Surgeons, both in England and Scotland, stand out in deplorable contrast to their generous Irish rival,—with such men as MACARTNEY, CARMICHAEL, JACOB, MURRAY, PORTER, and O'BEIRNE, struggling to repair injustice, and to give every man an equal chance of exercising his talents, and realising the legitimate rewards of industry, unfettered by iniquitous restrictions.

The Dublin College of Physicians, consisting of a small and inconsiderable faction, has hitherto refused to accede to the very fair proposals of their brethren. This must be attributed to the natural selfishness which makes vulgar minds cling to artificial distinctions, to the anti-reform spirit of corporations, and to the old jealousy and rivalry of the two Colleges; to which may be aptly applied an observation of COWPER respecting Oxford and Cambridge:—"On whatsoever "occasion either of those learned bodies "thinks fit to move, the other always makes "it a point to sit still, *thus proving its supe-* "*riority!*" The policy might have been good when the two Colleges were rivals in

the race of monopoly and injustice; but if the College of Physicians hesitate when the other College has thrown itself into the ranks of the Reformers; if the Dublin physicians sit still now, instead of proving their superiority, they will simply be left behind, and either perish by the way, or be converted, like the lingering wife of antiquity, into "pillars of salt," fixed upon the shores of a moral Dead Sea.

The necessity of union was insisted upon by several speakers; and the great objects of the meeting were well calculated to secure a union of the right sort—a legitimate, energetic union of action in a good cause. For there is such a thing as union in apathy, union in submission to injustice, union in baseness, union in servility. Tyrants, when they have the power in their hands, preach peace; the self-elected, usurping Councils of the Colleges in England, Scotland, and Ireland, all agree in recommending to their abject members a life of tranquillity, ease, and indifference; in their eyes the apathetic *union* of the profession is the greatest good; it is to save their members *trouble* that Mr. GUTHRIE, Mr. LAWRENCE, Mr. BACOT, Sir HENRY HALFORD, appropriate and distribute the funds of the commonalty; it is to prevent the commotion of an election by the members that the usurping Councils elect themselves for life. But such union is death; and to Englishmen worse than death. It is unconditional oriental submission to despotism.

The right of self-government is legally inherent in every body of Englishmen, Scotchmen, Irishmen. It is the basis of the English constitution. The chartered Borough Corporations have regained that right, and the Town Councils are now elected annually by the rate-payers. And why is it that the Medical Colleges are still unreformed? that the Councils are secret, irresponsible, and unchangeable? that a full statement of their accounts is never divulged? that the twenty-one never consult the twenty thousands of their members? Why are the members of the Medical Colleges denied a right which has been conceded to the rate-payers of every paltry town in England? Have they less intelligence or less honesty than their countrymen? Can the sense of present wrong—the memory of past injury—tyranny—monopoly—selfish regulations—of all the treacherous Councils have done and have left undone, arouse no sentiment of resistance in the breasts of English practitioners? Will they submit eternally, and see their interests disregarded? Their privileges usurped? Their rights trampled upon by the swaggering GUTHRIE, the renegado LAWRENCE, the fratricidal HALFORD? Must the highest places in the profession still be the rewards of mediocrity, the premiums of apostacy, the gifts of an oligarchy? Such a monstrous state of things cannot long continue; and if, contrary to the order of Nature, the principles of liberty sink in the East, they will rise gloriously in the West, for it is in their essence never to suffer extinction.

There has been *union* in the members of the profession; they have been fettered together in the same chains, and in the same slavery. That union has endured too long. But that it may be dissolved for ever, it must be replaced by union of another kind; a union of will and discipline in the thousands of honest, intelligent practitioners, determined to enjoy their rights. Sound liberal principles must be inscribed on the banner of Medical Reform; and no private crotchets should prevent reformers from rallying in support of the good cause,—the cause which must soon triumph, despite of wily foes, or recreant friends, in England, Scotland, and Ireland.

The self-chosen, usurping, corrupt medical corporations, that stand now almost alone, like pestilential carcases in the midst of the resuscitated sisters, have paralysed medical science in this country. They are the nightmares of British genius. The hospitals are rendered by them useless to science and destructive to humanity. The iniquitous corporations shut up the fields of discovery, or inevitably deprive the labourer

of his legitimate reward. The reorganisation of the medical institutions of the country, and the introduction of the principles of responsibility and representation, will give a new life to medicine, and speedily raise a conjectural art to a positive science.

The principles of a *Medical Reform Bill* have been some time in preparation, and will very shortly be submitted to the consideration of the members of the profession in the different parts of the kingdom.

OBSERVATIONS
ON THE
CORONER'S COURT,
AND ON THE
IMPORTANCE OF MEDICAL EVIDENCE AT INQUESTS,

(*From a Lecture on Medical Jurisprudence, by* Dr. CHOWNE.)

SUCH are the intrinsic merits comprehended in the system,—such the importance of the ends to be attained,—that the very perfection of its theory tends to render at once more conspicuous and more lamentable those practical errors, by which it is too often disfigured, and its objects are too often frustrated.

A tribunal exercising such important functions should have its real importance justified by calling to the exercise of its responsible duties men of station in society corresponding with the powers delegated to them, and their investigation should follow out, to its farthest limit, every train of inquiry that can possibly elucidate the subject under inquisition, in order that its decisions may finally have, so far as philosophy and science can supply, the character of infallibility.

The examples of defect most closely connected with our present subject, are those in which the medical investigations are not so carried out

We see, indeed, investigations of *minor* importance conducted with *greater* precision, even in matters connected with the ordinary compacts, which have for their object the mere personal interests of those whom they concern.

In the event of vessels lost at sea, under circumstances not compatible with the ordinary course of events, underwriters do not fail to institute rigid and critical inquiry into the fitness of such vessels for the voyages in which they may have been employed, as it regards their sea-worthiness, their capabilities of tonnage, and their general outfit, with all other circumstances affecting their responsibilities; nor do they fail to call to their aid the evidence of *practical* persons, versed in the *experience* of those particulars to which their inquiries tend.

In suits at law, where the terms of contract for any building, or buildings, machinery, or other works, may appear not to have been fulfilled, engineers, architects, and mechanics are consulted, and none *presume* to decide on the quality of materials, the mode of their combination, their relative strength, or the *cause of their failure*, without the skill and *experience* of men PRACTICALLY acquainted with each *particular* and *individual* department.

Where death occurs under circumstances somewhat analogous, we certainly see the Coroner's jury pursue an analogous course; where the loss of human life is caused, for example, by machinery, mechanics are consulted; where, by the unskilful navigation of vessels, as in our rivers and harbours, persons skilled in nautical affairs are consulted.

Yet in cases of loss of life, apart from obvious causes, where, under the outward appearance of natural death, the too successful and subtle agencies of crime may lie concealed, where the experience of medical skill alone could effectively prosecute the investigation, we have the anomaly of inquests and verdicts in the utter absence of medical assistance,—of surmises founded on mere superficial probabilities, taking the place of rational and scientific deductions; and of problems relating to matters of fact, solved upon vague speculation,—upon the speculation, too, of persons wholly unacquainted even with the rudest medical data.

We see, also, not unfrequently, even where the medical jurist *is* called on for his opinion, that he is checked in the prosecution of his research, and that the darkness which envelopes the subject of his inquiry, is rendered impenetrable, even at that point where light is most needful, by the interdiction of post-mortem examination; we see, indeed, the resources of medical science repudiated, and the weaker testimony of circumstantial and negative proof supersede the stronger evidence of positive demonstration.

It may be a popular opinion that the broad question of whether death has been the result of natural causes or of unfair dealing is one easily solved, and that under all *ordinary* circumstances, the solution lies within the sphere of *ordinary* circumspection; but so subtle are the means by which life may be taken away; so extensively and popularly known (from the diffusion of medical literature, in a greater or less degree, throughout all society) are the secret instruments of death; so strongly are the malevolent, the vindictive, and the cunning, armed against the unsuspecting and unwary,

that the institutions of the country are imperatively called upon to supply the strongest possible security and defence. This security and defence are essentially the province of the institution to which we are now addressing our attention, and the *base* and *foundation* of these are the resources of medical science.

It may, perhaps, be admissible, that we should bestow a few moments consideration on the grounds upon which juries so often fail to give to the subject of their inquiries the assistance that would be afforded by the skill and experience of the medical jurist. We may, I believe, with strict propriety, concede, as one cause, and I would willingly admit a frequent cause, the firm belief (conscientious though mistaken) that the subject admits of no further elucidation than that which general testimony may afford. Another, perhaps still more frequent, originating also in pure and conscientious motives, although in mistaken principles, is economy.

With reference to the first I would say, that where death may have occurred under circumstances apart from any obvious cause, the instances in which the assistance of the medical jurist would not further, if it did not actually perfect, the ends of the investigation, are so few as to constitute extraordinary and rare exceptions to the general rule.

An opinion has long prevailed, and has unfortunately been often acted upon, that the *jury* may very well decide on the *occasions* in which medical evidence may be required; but it is proper to recollect, not only that when an obviously medical question arises, it can be answered only by the medical jurist; but that questions may and often do arise where there is no *obvious* medical connection with the subject of inquiry, in which the *ordinary jurist* sees no point, no discrepancy, no contradiction, between statements that may occur in evidence, and the known laws of the animal economy, of disease, of physiology, or of pathology, while the medical jurist is capable of perceiving at once in the connection or the anomaly, as the case may be, a clue which, properly followed out, may lead to the most unexpected and satisfactory results. None but the *medical jurist* can satisfactorily determine the weight of evidence adduced;—whether, for example, that which may be stated to be the *manner* of the persons dying corresponds with that which may be assigned as the *cause* of death;—whether the *time* at which death may be *said* to have taken place, corresponds with the circumstances under which it is *alleged* to have taken place;—and whether the state of the body is such as would be the result of death occurring under such circumstances, and with such symptoms as may have been described.

Upon this principle we are, I think, warranted in doubting whether, in *any case*, where the cause of death is *not evident*, the jury can conduct the inquiry to its legitimate end in the absence of that experience and knowledge which is possessed only by members of the medical profession.

With reference to the consideration of economy, as a cause for dispensing with medical testimony, two observations appear to apply:—

1st. That such immediate saving as might accrue, is not true economy.

2nd. That although it were true economy it would be mistaken in principle.

In considering the proposition that such saving is not economy in fact, or, to use a term perhaps more clear, although of the same import, in effect, we must not circumscribe our attention within so narrow a limit as to perceive only the actual cost to any given counties, for their respective inquests; but we must extend our observation to the influence of inquests in reducing the costs to these counties *for prosecutions*; that which tends most to diminish the number of prosecutions is the diminution of crime in its frequency, and that which diminishes the frequency of crime, is certainty of detection; these are the grounds on which the subject of economy as a question of fact should be considered.

With reference to the consideration of economy, as being mistaken in principle, the institution to which our attention is now directed must be regarded as one of mutual protection, and must be judged of on those principles of humanity and civilisation which form the basis of a social state. A system of mere saving, under the name of economy, can properly have no place when the question is whether we are to strengthen the means of protecting life, on the one hand, or to weaken them, on the other; the first step in civilisation, and the first duty which civilised men owe to each other, is mutual protection; and institutions the professed objects of which are protective, should make the nearest possible approach to perfection. That economy, indeed, which looks to an estimate of costs in comparison with the preservation of human life, appears to be a sad perversion of human forethought from the path of a broad, comprehensive, and imperative duty, into that of a narrow, sordid, and mistaken policy, unworthy alike of the legislator and the philanthropist.

Researches on the Development, Structure, and Diseases of the Teeth. By A. Nasmyth, F.L.S., F.G.S., M.R.C.S., &c. &c. London: J. Churchill, 1839.

Such interesting and important discoveries have lately been made with respect to the structure of the teeth, and so important have these organs become as guides to the anatomist in the classification of the differ-

ent members of the animal kingdom, that a new work on the subject was imperatively called for, and the demand could not have been more efficiently responded to than it is by Mr. Nasmyth in the work before us. We are glad, also, that the subject has not been taken up by a writer versed in natural history merely, by whom it must necessarily have been treated almost exclusively in a point of view interesting only to men of science, and of no utility to the practical department of the medical profession.

In the work before us the teeth are not only considered in all their scientific bearings, with respect to their variations of structure, from their most simple to their most complex forms, and also in reference to the aid which they afford to the geologist and student of natural history, but ample promise is given that the discoveries which have lately been made in their internal organisation will be made available for the purpose of throwing light on their various pathological conditions; and the manner in which this first part of his work is executed, as well as the scientific zeal and acquirements of Mr. Nasmyth, and his reputation in the practical part of his profession, are sufficient guarantees that this promise will be in every respect fulfilled.

The opinions of the ancients on the teeth were extremely discordant and fantastical, and appear to have been, for the most part, the fruits of mere speculation. Even Vesalius, the restorer of human anatomy, does not appear to have studied the teeth with the same attention which he devoted to the other parts of the body. Leeuwenhoek, who was decried by some of his successors as a merely mechanical investigator, was the first to examine them with care, and to deduce from his own observation exclusively his views respecting them. In a communication made by him to the "Philosophical Transactions" for 1678, we find the following remarkable passage:

"I have some time since applied a glass (esteemed by several gentlemen who had tried it a very good one) to observe the structure of the teeth and other bones, which both to them and myself also, then seemed to consist of globules; but since then, having drawn out one of my teeth, and for further observation applied better glasses than the former, the same gentlemen with myself agreed, from what we plainly saw, that the whole tooth was made up of very small, strait, and transparent pipes. Six or seven hundred of these pipes put together, I judge, exceed not the thickness of one hair of a man's beard. In the teeth of a cow the same pipes appear much bigger, and in those of a haddock somewhat less."

In his "Continuatio Epistolarum" he also shows that he was acquainted with the cortical substance, for, speaking of the teeth of the calf, he says,—"*Undiquaque alio osse circumducti erant;*"—"*adeo ut jam me adhuc magis quam antea certum reddere possem, circum primo confectum dentem os accrevisse.*"

Of Mr. Hunter's work on the teeth, and of the relation in which it stands to the advanced state of science in the present day, Mr. Nasmyth treats at length, and while he does full justice to that eminent physiologist, he does not hesitate to point out the errors and deficiencies which are necessarily frequent in his description of the physiological and pathological conditions of these organs. The reader will be surprised to find that there is a great resemblance between the surgical doctrines of Hunter and those of the old French "chirurgeon" "Ambrose Paré," from whose writings on the subject some very amusing extracts are given. The writings of Blake, Fox, and Bell, are passed in regular review by Mr. Nasmyth, who is everywhere careful to point out the services which the authors whom he criticizes have rendered to science.

A very complete and satisfactory analysis is also given of the odontological writings of Bichat, G. Cuvier, F. Cuvier, Rousseau, Serres, and Blandin. But we must hasten to the more important era of investigation which was constituted by the simultaneous labours of Retzius, professor of anatomy at Stockholm, and of Purkinje, and his disciples, Fränkel and Raschkow, at Breslau; a full report of all which is given in the work before us. We find (p. 44) that previously to this era but very little solid or satisfactory information could be obtained, even in the writings of the best authors, on the structure of the ivory, enamel, and the cortical substance of the teeth. With respect to the structure of the ivory, the statements of Purkinje are as follows:—

"The proper dental substance examined in thin polished lamellæ consists of a uniform structureless (*structurlos*) substance, and of fibres passing through it. These latter run in parallel lines from the outer to the inner surface of the tooth, obliquely in some places, straight in others: they are in every part nearly of the same size, and communicate by but few branches with each other.

Though they are very thickly placed, still the structureless intermediate substance forms the greater part of the mass of the tooth; as their diameter he gives one-fifth or one-sixth of the space between two of them. He has also discovered that these fibres are tubular, and that in the teeth of the horse, at any rate, they are capable of absorbing ink by capillary attraction—a fact which is also confirmed by Müller. As to what these tubuli may contain in their normal state, Purkinje is silent; but Müller has instituted researches which go to prove that parts of them, at any rate, are filled with inorganic, calcareous salts. The latter goes on to say, that when the light falls on fine polished lamellæ of dental bone, the white colour of the tooth is soon seen to be owing to these tubes or fibres, and that the intermediate substance is more transparent; moreover, that when such sections are submitted to the action of an acid, the white colour of the fibres disappears, the remaining cartilage still presenting tubes in their interior, which, however, when dried, are no longer white."—p. 46

"Inasmuch as the dental fibres have their white colour destroyed by acids, whilst the intermediate substance remains transparent, it follows that either the parietes of the tubes, or their interior, must contain calcareous salts. In breaking fine sections of teeth perpendicularly to the fibres, Müller has frequently seen the latter projecting a little at the fractured edge. In such cases they are quite straight and not curved, and seem to be not at all flexible. Hence it follows that the tubes have an organised basis, a membrane, and that this in the solid tooth, is stiff and brittle, and, probably, saturated with calcareous salts, but weak and soft in the tooth which has been deprived of the latter."—p. 47.

"According to Purkinje's researches the enamel consists of simple perpendicularly-placed fibres, increasing somewhat in size towards their upper extremity, forming quadrilateral prisms, and often making several curves on one and the same level. These fibres are adherent to lamellæ, which run transversely round the tooth, and generally rest obliquely on the surface of the dental substance. These observations are fully confirmed by Müller, who has examined the last molar tooth of a calf, on which the enamel was still soft, and found that even in this state the latter consists of separate prisms, as yet uncemented, but held together by a transparent fluid matter. These firm but somewhat flexible fibres are not easily acted on by acetic acid, but quickly dissolve in muriatic acid, without any perceptible escape of air."—p. 48.

Mr. Nasmyth has given us all the substance and all the plates of Retzius's celebrated work, "Mikroskopiska Undersökningar öfver Tädernes särdeles Tandbenets, struktur: Stockholm, 1837," in which the author, with the utmost patience and zeal, investigates the microscopical structure of teeth in all the various classes of animals; thus showing, as it were, their progress from their most simple and rudimentary to their most complex and perfect forms. Our space prevents us from entering into his exact and complete details; we can here only say that the English version is executed with care and correctness, and is certainly more true than the translation given in Müller's Archives. The results to which Retzius arrives are as follow:—

"The teeth of mammalia consist, in general, of three substances, the dental bone, the enamel, and the cortical substance. These three substances form also the teeth in certain amphibia and fishes. The dental bone contains tubes and cells which are in communication with each other, and which are analogous to the minute tubes and cells forming an important part of the organisation of bone."—p. 113.

"The tubes in the dental bone open into the cavitas pulpæ, and give off branches in their course which form a network of communication between each other, and which terminate in cells. These cells, together with the branches from the main tubes, nearly fill up the interstices between the latter. The breath of the main tubes varies from one-four-hundreth to one-thousandth of a line, P.M., and diminishes as they divide into branches; the most minute subdivisions are many times smaller then one-thousandth of a P. line. It is very likely that the tubes and cells which are seen under the microscope form but a small portion of those which really exist."—p. 114.

"The enamel presents a much more simple structure, being without sanguiferous or any special vessels: its structure most resembles that of the crystalline lens; it also, probably, requires an organic fluid for its preservation, which, as I presume, is conducted to it by the tubes of the dental bone, permeating afterwards the membranous parietes which probably clothe the individual fibres."—p. 121.

The physiological deductions which the Swedish anatomist draws from his anatomical data are not very satisfactory, as Mr. Nasmyth has pointed out; nor is our author disposed to rest altogether satisfied with the value and extent of the evidence adduced in favour of the existence of a system of ramifying tubes in dental bone: we hope, however, that he will shortly lay before the public his own researches on the structure of the teeth. The latter part of the work

contains a full account of the recent researches on the development of the teeth, by Goodsir, Arnold, and Raschkow. The investigations of Raschkow on the origin of the dental follicle; on the anatomy of the organ for the production of the enamel; on the dental germ; on the formation of the enamel; on the cementor crusta petrosa; on the alveolar membrane; and on the development of the gum, are well worthy of attentive consideration.

Then follow a retrospective review, and an impartial summary of the present state of our information on the anatomy and physiology of the teeth.

We may safely promise our readers that they will find in this work all that is valuable in the ancient and modern researches on the teeth, whether these organs be contemplated in a generally scientific or a more strictly professional point of view. It contains seven beautiful steel engravings, illustrating the structure of the teeth, and is got up in a style which is very creditable to the publisher.

FOREIGN HOSPITAL PRACTICE.

LA CHARITÉ.

M. Vizor, aged 25, was admitted May 23, 1838. This young woman in her infancy had the misfortune to lose her lower lip in consequence of sloughing of the tissues. The incisor teeth were also destroyed, and have been replaced. She was exceedingly disfigured by the loss of the substance, and was also annoyed and enfeebled by the constant loss of the saliva, which continually dribbled away from the open space. Some months ago M. Velpeau made a new lip, by bringing the parts from the lateral surface of the cheek. The operation was exceedingly tedious, perhaps an hour and a half in length, and there was very great reason to fear that sloughing would be produced by the excessive traction exercised to bring the newly cut surfaces together. However, after a few unpromising symptoms all went on well, and the parts adhered except at one point, leaving a hole in the centre of the line of reunion. The chin and lip, of course, appeared too small, on account of the tight and strained position of the parts.

To-day she was brought again into the theatre to have the hole closed up by means of a flap brought from under the chin. Two incisions were made from either side of the chin towards the os hyoides, and there united by a transverse cut. The oblong flap was now dissected up, and the wound brought together by pins and suture. The surgeon left the operation of filling up the hole with flap for a future period. This operation occupied nearly half an hour.

May 24. The girl is pretty well, but rather hysterical. Some heat of skin, and quickness of pulse. She was ordered an antispasmodic mixture. The extremity of the flap is rather cold, and dull in colour. It is separated from the adjacent surface by the dressings.

25. One half of the flap is black, and apparently in a state of mortification.

26. The hare-lip pins removed. The gangrene of the flap appears to have become determined.

27. The gangrened portion cut off.

30. Gangrene has again seized the extremity of the flap, and seems also likely to involve the adipose tissue still further.

June 2. To-day M. Velpeau rubbed the cutaneous surface of the flap, and the circumference of the aperture in the new lip, with concentrated liquor ammonia.

8. A piece of sheet-lead is used to support the flap in its place. Adhesion appears likely to be effected.

15. The adhesion of the flap to the margins in the aperture of the lip is not perfect, for the saliva still dribbles through.

20. The right border of the new flap and the hole in the lip were scarified, and then brought into apposition with one another by means of a suture.

24. Adhesion seems to have taken place. The strips of adhesive plaster were renewed to-day.

July 19. Adhesion is perfect on the right side; but is still unaccomplished on the left.

ERYSIPELAS.—NITRATE OF SILVER.

Mr. M. was requested by M. Velpeau to try the influence of nitrate of silver in two cases of erysipelas.

The first case was one where the disease occupied the left inferior limb, and had been induced by the operation of obliterating varicose veins by pins. It was about the tenth day of its existence, and it occupied nearly the whole of the front and inner part of the leg and thigh. A strong solution of the nitrate of silver was made use of, and a broad line drawn round the limb, above and below. The erysipelas gradually became less and less above, but it passed the line below, and gradually reached the foot when it disappeared altogether.

In the second case a man had been in the hospital for some time with a sore over the elbow, connected with a necrosis of the humerus. Suddenly, a blush of erysipelas appeared around the edges of the wound, and gradually spread in every direction, so as to cover the whole of the elbow, and part of the arm and forearm. A very broad line of caustic solution was drawn round the inflamed surface, at some distance from its

margins. This was on the second day, when the constitutional disturbance was in full progress; shiverings; nausea; and general excitement.

Next day his report was that the tingling of the caustic had annoyed him much until the evening. The erysipelas appeared to have passed the upper line, but not the lower. The lower line is the broadest and most deeply marked. The surface is vesicated by the nitrate of silver.

Second day. The erysipelas is spreading beyond the superior line, as high as the axilla. It forms a patch of the size of the palm of the hand, is very tender, and of a bright-red colour. His feverish state continues.

Third day. The erysipelas has passed the lower ring of caustic; it has also extended in the direction of the axilla. As his bowels are rather too open he is ordered to take rice-water.

Fourth day. The erysipelas continues its course.

30th May.—Seventh day. The arm is a good deal swollen where the erysipelas had been. The skin is now not so red, and the complaint appears to have ceased to spread.

31. The erysipelas has left the arm and forearm; there is a little yet on the scapula and upon the back of the hand.

June 3. The erysipelas appears to be disappearing.

7. There is still a little erysipelatous blush wandering between the shoulders. His general health is much out of order; tongue red and glazed; diarrhœa and heat of skin.

21. A small abscess formed over the spine of the scapula, and was opened a few days ago.

July 5. Is nearly exhausted with erysipelas and with abscesses in various parts of his back and sides. He died on the 15th. His elbow was found perfectly anchylosed.

WOUND OF THE FOOT.—ERYSIPELAS.

Louis Carron, aged 17, was admitted on the 24th of May, 1838, with compound fracture of the fourth toe of the right foot, from the falling upon it of a heavy piece of metal. An emollient cataplasm applied to it.

May 29. A little redness about the wound.

30. The erysipelas has involved the whole of the metatarsal region of the foot, and seems inclined to spread further, for there are red streaks in the direction of the ankle; considerable pain in the region of the groin; much febrile excitement; thirst; white tongue, and quick pulse. M. Velpeau considers it as a mixed case of simple erysipelas with inflammation of the absorbents. He has ordered leeches to the foot, beyond the erysipelas, and venesection to ten ounces.

31. The erysipelas is better. It has not extended further up the foot, nor is it as vivid as yesterday. The inflammation of the absorbents has extended, and may be traced in red lines as high as the groin, where he has much tenderness. Blood not buffed nor cupped. The wound looks unhealthy.—Leeches to the groin.

June 1. The red lines have extended further up the leg. The erysipelatous blush seems to be spreading towards the ankle, and has left the dorsum of the foot.

2. The erysipelas is advancing up the leg, and it appears to increase in its intensity, for the skin is vesicated at several points, which did not occur before. Beyond the margins of the erysipelas the red lines of inflamed absorbents still appear.

3. The erysipelas is extending towards the knee. The wound of the toe is looking better.

5. The erysipelas is above the knee. The wound of the toe is looking clean, in spite of a large blister that had been applied to the surface which had been affected with the disease. This blister was so long as to include more than the portion of skin actually inflamed. To-day, however, the erysipelas has passed beyond it. Great œdema of the foot.

June 7.—Ninth day of disease. The erysipelas does not appear to have extended higher since yesterday, and the surface is less red. The patient expresses himself as being better, though much reduced.

8. The erysipelas still extends up the thigh.

11. The erysipelas has stopped at the centre of the thigh, and is, apparently, subsiding.

12. Continues to improve; no further appearance of erysipelas.—To have a little meat.

13. Continues to improve; the œdema of the foot is less.

18. Is getting well. Two small abscesses opened upon the dorsum of the foot.

21. Almost well. Discharged, cured, a few days afterwards.

PHLEGMONOUS ERYSIPELAS, THE RESULT OF VENESECTION, ENDING FATALLY.

May 25, 1838.—A young girl, named Freling, aged 17, was admitted to-day. She is of healthy appearance. She was bled six days ago in the median basilic vein of the right arm. The next day the part was red, swollen, and painful. The day after it was still more so; she applied leeches and poultices, but the complaint increasing, she has come into the hospital. At present the arm is very much swollen, from the middle of the forearm to near the axilla. The surface is tense, pale-red, hard as brawn to the touch, and very tender; no hard cord can be felt in the course of the basilic vein. Her general health does not appear to be very much disturbed. The house-surgeon states, that yesterday evening, when she was

admitted, the arm was much more red than it is at present. He applied a bandage to it. M. Velpeau considers this a case of inflammation of the cellular tissue of the arm, commencing in phlebitis externa; that the inflammation is of the phlegmonous character; that although no fluctuation is evident at present, yet it is very probable, from the duration of the disease, that pus has already been formed at different points. He proposes to continue the compression by means of an accurately-applied bandage, as he has found most benefit from this plan. He thinks that abscesses will form at different points.

May 26. Expresses herself as being better. The bowels are open; pulse a little quick; tongue white. The arm is bandaged from the fingers as high up as the axilla.

27. Bandages removed; arm less swollen and red.

30. Is much the same.

31. Is better. Complains of sore throat.

June 1. In different parts of the arm there are to be felt several circumscribed hardnesses of the cellular tissue. Her general health seems to be deranged. Tongue loaded and cream-coloured; pulse quick; skin dry and discoloured. In all other respects her arm is much better.—An emollient cataplasm to be applied to it.

7. Cough, and pain in the chest; frothy expectoration, very slightly tinged with blood.—Twenty leeches to be applied to the chest.

11. Was pretty well yesterday; arm looking nearly natural. She died suddenly during the night.

After-death Appearances.

12. The basilic vein was filled with concrete pus from the bend of the elbow to the axilla, in such a manner as to have arrested, completely, the circulation of blood through the vessel; from the axilla to the auricle of the heart the continuation of the venous trunk was partially filled with a fibrinous coagulum, which was also connected with a similar mass which nearly filled the auricle. This fibrinous clot was pale, firm, and not easily lacerable; when cut or torn it presented, in the surface of the section, all the appearances of muscular tissue. The coats of the veins in which this coagulum was contained presented nothing unnatural in their appearance; yet, from the density and paleness of the coagulum, M. Velpeau was convinced that it had existed previously to the death of the patient.

There was not much disease in the lungs; in the inferior part of the posterior surface of the right lung the pulmonary tissue was in the first stage of hepatisation. In some other parts of the posterior surface of the lungs there was a good deal of sanguineous congestion, but it did not seem to be more than what might be dependent upon the position of the parts affected.

In the left lung there was a circumscribed portion, of the size of a walnut, which presented, in M. Velpeau's opinion, all the characteristics of a commencing deposit of purulent matter. It was firm, densely organised with blood, and fleshy in its appearance. M. Velpeau said that he was not surprised at the fatal termination of the case, though he had by no means suspected that it was to be so soon and so sudden, for in the morning of the day of her death she had expressed herself as being very much better, and even up to within a few hours of her death she was lively, and conversed with the rest of the women in the ward, so as to excite no apprehensions in the minds of those around her as to the result. That there was great probability of there being more than the mere local affection of the arm was evident from the long continuance of the general symptoms; pulse frequent, but not strong, 110 in the minute; from the regular evening exacerbations, cough and pains in the region of the thorax, relieved by leeching; yet her countenance was always good; the skin hardly hotter than natural; tongue moist and scarcely white. In his opinion the girl died from purulent absorption, the result of internal phlebitis, originating in the wound of the vein practised in the operation of phlebotomy in one of the medical wards of the hospital, about twenty-three days ago.

UNIVERSITY COLLEGE HOSPITAL.

SCHIRRHUS OF THE MAMMA.—OPERATION.

THE subject of this case was a man, 47 years of age, temperate, married, and a plasterer by trade. He first discovered a slight swelling in the right breast, about six months ago, for the appearance of which he can assign no probable cause. He took little notice of it for the first three or four weeks, but at the end of that time he consulted a medical man. Under the use of leeches, the application of iodine ointment, and the administration of iodine internally, the tumour was much diminished in size. During the time that these means were being employed, he met with an accident, and fractured his leg, for which he was confined to bed for four weeks. During this period he discontinued the use of the iodine, both internally and externally, and the tumour again commenced enlarging, and became very painful. The tumour at present (Feb. 6, 1839) is about the size of a hen's egg, hard, loose, and accompanied with a deep, lancinating pain. The tumour was removed by the knife on the 8th of February, and on the 4th of March he was discharged, well.

In some observations on this case, Mr.

Liston said, that the mamma was rarely diseased in man. During twenty years he had not seen more than eight or ten cases. Scirrhus of the breast in the male was indicated by the same symptoms as when the disease affected the female. Women were rendered more liable to this affection by the great sympathy which existed between the mammæ and the uterus. Hence irregularities regarding menstruation, the irritation of suckling, the occurrence of milk abscess, and the production of a hard tumour, which at the climacteric period was liable to take on malignant action, were all sources of the disease in women. To these might be added external injury. The mammæ were apt to enlarge in boys before puberty, but this enlargement was not accompanied by any specific disease, and purgation, leeches, and fomentations, were successful in removing it. In the case under consideration, the lancinating pain, the stony hardness of the tumour, and the retractation of the nipple, left no doubt of the nature of the disease. The character of the tumour, as demonstrated by dissection, showed the propriety of its removal. It consisted of a distempered mass, of a more malignant character than simple scirrhus, and resembling the growth which furnished a bleeding fungus; being composed of a brain-like matter, with masses of blood in it; and it had begun to adhere to the neighbouring parts. Those who had seen the operation would have observed that he took no pains to preserve the integument. It was a good maxim in malignant disease to cut wide of the mass to be removed; bringing the edges of the wound together was a secondary consideration, and it was often well to allow it to heal by granulation.

BRITISH MEDICAL ASSOCIATION.

Tuesday, June 11th, 1839.

Dr. Webster, President, in the Chair.

The minutes of the last meeting having been read and confirmed,—

William Gordon Davidson, Esq., Medical Establishment, Madras, was unanimously elected a corresponding member of the Association, and

John Bunce, Esq., Woodford, Essex, an ordinary member.

A letter was read from Mr. Bedingfield, of Stowmarket, relative to pauper attendance, and the disgraceful systems of tender and contract.

Extracts from letters from Dr. Maunsell were read, as also the resolutions of the Medical Congress lately convened in Dublin, which gave rise to some interesting comments.

Several documents were received on the subject of illegal practices in the profession.

Mr. Eales, in the absence of the Treasurer, informed the Council that the money held in hand, belonging to the Benevolent Fund, had been vested as directed by the Council at their last meeting.

The remainder of the evening was occupied in a final revision of the laws, previous to a second edition, the most material alteration in which consisted in the evenings of meeting being changed from the second and fourth Tuesday of each month, to the first and third. The meeting then adjourned.

Medical Discussions and Wagers.—Our brethren in the French metropolis have recently been engrossed by two matters, a discussion at the Academy of Medicine, on the functions of the nerves, and the *concours* for the chair of Therapeutics and Materia Medica, with occasional digressions on poisoning by arsenic. The energy, activity, and vivacity of the debates at the Royal Academy of Medicine are highly creditable to the members, and show a spirit which we would gladly see displayed at home. In Paris, no man dreams of establishing a reputation, or of hoping to maintain one, by silence. In Dublin, it constitutes the principal resource of a class who claim the exclusive possession of "all the talent" of the city, and angrily resent any expression of doubt as to their title. The Surgical Society is held to be little better than a Pandemonium, because debates on the papers read, or cases related, are permitted; and rival societies are got up where facts of doubtful authenticity, and reasoning, which will not bear the test of argument, are broached without fear of denial or refutation, as a fundamental regulation interdicts debate or discussion. The following scene suffices for a comment on the proceedings at the Academy:—"During the discussion on Saturday last, at the Academy, an interesting occurrence took place. M. Gerdy, while combating from the tribune, the arguments of MM. Bouillaud and Blandin, relative to the nerves of sensation and motion, in a moment of excitement said, 'I will give you ten thousand francs if, in any nervous disease, you can recognise the precise situation of the lesion of the brain, or spinal marrow, from the existing symptoms.' 'Done, done,' says M. Bouillaud. 'Done, done,' says M. Blandin. It appears that academic wagers become more numerous. On a former occasion our lithontriptic brethren fought with bank notes. M. Burdin has thrust a sum of five thousand francs under the noses of the magnetisers; another has done the same with the orthopedists. All this will lead to the advancement of science. We all recollect M. Lugol's incredulity respecting the *acarus scabiei*, and how a medical student carried off his cash."—*Dub. Med. Press*, May 22.

A REPORT OF THE CASES OF SICKNESS

AT THE

ASYLUM FOR THE CHILDREN OF THE POOR OF THE PARISH OF BIRMINGHAM,

Between June the 30th and December the 31st, 1837.

BY F. RYLAND, ESQ.

(From the "Transact. of Prov. Med. and Surg. Assoc." Vol. VII.)

THE following observations on diseases of children, which occurred at the Birmingham Asylum, are interesting, and will serve as a point of comparison with the cases and statistical remarks of Dr. P. Hennis Green, on similar diseases, which have so frequently appeared in this Journal. The most remarkable fact indicated in Mr. Ryland's table, and one for which we are at a loss to account, is the total absence of diseases of the brain amongst no less than 155 cases of disease in children.

	Under one year.		Between 1 and 2.		Between 2 and 3.		Between 3 and 4.		Between 4 and 5.		Between 5 and 10.		More than 10.		Total.		Total Cases.	Deaths.		Total Deaths.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.	
Abscess	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	1	—	—	—
Bronchitis	—	—	—	—	1	—	—	—	—	—	1	1	2	—	4	1	5	1	—	1
Cancrum oris	—	—	—	—	—	—	1	—	1	—	—	—	—	—	2	—	2	1	—	1
Convulsions	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Croup	—	—	—	—	—	—	—	—	1	—	2	1	—	—	3	1	4	2	—	2
Diarrhœa	—	—	—	—	—	1	1	—	1	1	4	1	1	1	7	8	15	1	1	2
Fever	—	—	—	—	—	—	—	—	—	—	8	6	2	8	10	14	24	2	—	2
Ophthalmia	—	—	—	—	—	—	—	—	—	—	4	3	—	1	4	4	8	—	—	—
Peritonitis	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1	1
Phthisis	—	—	—	—	—	—	—	—	—	—	2	2	—	—	2	2	4	1	1	2
Purpura	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Rubeola	1	—	2	3	4	2	3	5	4	8	6	6	—	1	20	23	43	3	8	11
Sloughing of pudendum	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	1	—	1	1
Struma	—	2	1	—	1	—	—	1	2	2	5	3	—	1	9	9	18	4	4	8
Varicella	—	—	1	—	—	—	1	—	1	2	—	1	—	—	3	3	6	—	—	0
Total	1	2	4	4	6	3	6	7	10	13	33	24	5	17	68	79	138	15	16	31

CANCRUM ORIS.

THE first case of this disease of which I took particular notice, was that of William Brodie, a healthy boy, æt. 5, who had been an inmate of the Asylum a few weeks only. He was suddenly seized with symptoms of croup in the evening of the 15th of October. One of my colleagues, in my absence, saw the patient, and ordered six leeches to the throat, three grains of calomel every hour, and an antimonial mixture every half-hour, till vomiting should ensue. On the following morning the boy was much relieved; he had taken four powders only, but they had produced several dark-green evacuations from the bowels, and much vomiting had followed the use of the antimonial. The breathing was still accelerated, but the croupal sound, which had been very loud on the previous evening, was greatly diminished; the cough was loose, and the pulse soft. Measles had fully developed themselves all over the body. Ordered to continue the antimonial. On the 17th, the improvement in the respiration and cough was increased; measles still thickly out; mouth sore from the effects of the calomel. 20th. The eruption nearly gone, and the boy in every respect better, the respiration being quite free, and the cough loose and less frequent. On the 31st, the soreness of Brodie's mouth, which I was at first induced to ascribe to the mercury he had taken, had assumed all the characters of *cancrum oris*. The right cheek was very much swelled, and the buccal surface had within it a deep fœtid slough, as large as a halfpenny, which appeared to be extending daily; the gums were separated from the teeth, and the tongue was swelled and ulcerated at the edges. The boy's appetite was good and his bowels regular. There was an appearance of excitement almost amounting to wildness about his countenance, and particularly about the eyes, and the pulse was very quick. A lotion containing chlorate of soda was first tried, without benefit; afterwards, a drachm of muriatic acid in an ounce of syrup of poppies, and subsequently a decoction of bark, but all without any benefit. Internally he took quinine and port wine three or four times a day, opium at night, and a highly nutritious diet. Nov. 2nd. There was great hardness of the right cheek externally, with a blush of redness upon it, and so much œdema that the eye was nearly closed. No improvement had taken place in the mouth, but the general health

was improving. In a few days from the last date, the ulceration on the inner side of the cheek began to heal rapidly, and in ten days was well; the external swelling of the cheek remained some time, and over the spot where the internal ulcer had existed a deep indentation was apparent. The only topical application that had been used latterly, was a decoction of bark, with alum and tincture of myrrh; the quinine and wine were continued till health was perfectly re-established.

During the time that this case was in progress, three or four of the children who died of measles, were observed to have cancrum oris in an incipient state, but death occurred before the disease had made much progress. In the same ward in which Brodie lay, was a brother of his, who, two or three days after the appearance of measles, became affected with ulceration and bleeding of the gums, which separated from the teeth. The disease was speedily cured by the muriatic acid lotion.

Wm. Walker, æt. 4, was brought about the same time into the sick-ward, and in him the canker had produced as severe effects as in the case of Brodie; there was a deep sloughy ulcer on the inside of the cheek, and a line of ulceration along the edges of the gums. He used the same measures, topical and general, as Brodie, and was soon cured. On the 9th of November, Charles Pashley, æt. 3, of intensely strumous diathesis, with small limbs and a large belly, was brought into the sick-ward on account of the state of his health. Upon inspecting his mouth, the existence of the canker was discovered. On the 13th, there was a large sloughy ulcer on the right side, at the junction of the cheek and the gum, penetrating upwards to a great extent towards the malar bone. Externally the cheek was very much swelled, but pale; the right eye was almost concealed by the swelling. On the 17th, the cheek gave way externally, and a deep slough appeared, which continued to extend itself at the edges, till, on the 23rd, it reached the angle of the lips, making a large gap in the side of the mouth, and laying bare the upper molar teeth. This boy's appetite continued remarkably good till about the 21st, when he became restless, lost his desire for food, and suffered severely from diarrhœa and want of sleep. He took opium at bedtime, quinine, wine, and nourishing food, during the day; and various topical applications were used to the sore without benefit. He died worn out on the evening of the 24th. The body was examined on the following day; every internal organ was in a healthy condition, except the mesenteric glands, which were considerably enlarged. The disease of the cheek reached externally from the angle of the mouth to the corner of the eye. The cellular and adipose tissues were in a state of ashy slough; the superior maxillary and malar bones were denuded of periosteum, but they retained their proper colour and texture, and were apparently unaffected by the surrounding disease.

During the first week of December, Ellen Jukes, ætat. 4, a large-bellied, scrofulous child, who was in the sick-ward on account of a sloughing sore on the left hip, was perceived to have a large sloughing ulcer on the inside of the left cheek. In spite of the treatment adopted, the canker spread rapidly, and perforated the cheek on the 19th of December. She was immediately removed to the workhouse, and after the lapse of a few days, the sore reached from the external corner of the eye to the angle of the mouth, presenting a most hideous spectacle. The patient continued, however, to eat, drink, and sleep well at the time; the sore on the left hip, and a similar one which had formed subsequently on the right hip, healed. On the 7th of January, 1838, the sore in the cheek had begun to look cleaner. 14th. It had diminished in size, and was full of healthy granulations, except at the centre, where a blackened portion of the superior maxillary bone could be seen through the hole in the cheek. After a few weeks a portion of this bone, containing an old molar tooth and a new one making its way at the root of the other, came away through the ulcer in the cheek; after which the sore rapidly cicatrised, and the child was restored to perfect health.

Some weeks previous to the occurrence of these cases, a disease similar in its nature, but affecting a different part of the body, had been noticed at the Asylum. Sarah Chatwin, ætat. 3, broke out with the measles on the 12th of August; she suffered little, and was soon convalescent. On the 22nd the pudendum was observed to be inflamed, and a sore speedily formed on the inner side of the left labium; it soon assumed a phagedenic character, and extended itself to the right labium, afterwards to the mons veneris, and to the parietes of the abdomen, nearly as high as the umbilicus, destroying the skin and the subcutaneous, cellular, and adipose tissues. She died from the exhaustion produced by the disease on the 8th of September. Two other female children who died of measles about the same time, had, just before their death, inflammation of one of the labia, accompanied by the formation of a vesicle filled with a dark-coloured fluid. This was, without doubt, the commencement of a disease similar to that which destroyed Sarah Chatwin.

In the following case death was occasioned by the sloughing of one of the laryngeal cartilages:—Letitia Wilks, ætat. 4, had measles on the 11th of August; during the night of the 23rd she was seized with symptoms resembling croup; the respiration was accelerated, difficult, and sonorous. She

became daily worse, and died on the 26th, apparently more from exhaustion than from suffocation. Her mental faculties remained perfectly clear till the last. On a post-mortem examination it was found that the disease was not croup. The trachea was free from inflammation; the epiglottis was reddened, thickened, and erect; at its upper edge there was a deposition of purulent matter beneath the mucous membrane; lower down on each side were broad ulcerations covered with ash-coloured sloughs. At the anterior part of the larynx, just below the junction of the vocal chords, was a very large ulcer, communicating with a cavity, within which could be seen the thyroid cartilage in a state of slough. The other laryngeal cartilages were healthy.

It will be observed that the preceding cases, which were all instances of low inflammatory action, succeeded by sloughing and phagedenic ulceration in the parts attacked, occurred, with three exceptions, after measles. Two of the exceptions, Charles Pashley and Ellen Jukes, were afflicted with scrofula to a severe extent; at the time of their being attacked by the cancrum oris, they were residing in the sick-ward on account of the state of their health. It has been remarked by writers that cancrum oris most frequently ensues after the eruptive fevers, and especially after measles. I have seen it twice after small-pox, and once after simple continued fever; and the latter case occurred in the Asylum.

I have no hesitation in ascribing the occurrence of these diseases, both cancrum oris and sloughing of the pudendum, principally to the peculiar *locale* and other circumstances of the Asylum. The measles and the strumous diathesis were, without doubt, strongly conducive to the production of these forms of disease; but as the former have so often existed in the town without being followed by the latter in any one instance within my own observation, or within the range of my inquiries, I think myself fully justified in the foregoing conclusion. The recovery of Ellen Jukes, after her removal to the workhouse, which is situated in one of the most densely-populated parts of Birmingham, is a strong argument for the deleterious qualities of the atmosphere of the Asylum. Her case was certainly one of the worst that occurred. Before her removal it was continually becoming more desperate, and, in fact, she was sent away rather for the purpose of getting rid of a horrible spectacle from amongst the children, than with any idea of benefit accruing to herself from the change.

FEVER.

The majority of the cases of fever occurred at the latter end of September and throughout October. There were twenty-four in all, and two deaths, which is rather a small mortality. The fever was a mild typhoid; it commenced for the most part in a very insidious manner, without any distinct initiatory stage, affecting the brain more particularly in some cases, and the alimentary canal in others. In the former class of cases febrile excitement was scarcely apparent, but the patients soon fell into a dull, almost torpid condition; the senses became blunted, the mental and corporeal energies paralysed. Very many of these cases were removed to the infirmary connected with the workhouse, and they soon improved after the change, one of them only having a fatal termination.

PHTHISIS.

Four cases of pulmonary phthisis were admitted into the sick-ward, two boys and two girls; of these, two were fatal, a boy, æt. 5, and a girl, æt. 6. In the boy, together with a tubercular state of both lungs, the upper lobe of the left lung was gangrenous. In both the fatal cases it was observed that the abdomen, which, at the commencement of the final illness, was of very large size, diminished considerably as the pulmonary disease advanced; and, on inspecting the bodies after death, the mesenteric glands, though enlarged, were much smaller than I had expected to find them from the appearance of the children at the time of their admission into the sick-house. This is attributable partly, no doubt, to the general wasting of the body, and partly to the setting up of active disease in the chest.

MEASLES.

The cases of measles were in number forty-five, the deaths were eleven, or about one in four. The epidemic began in August, when there were two cases; in September there were thirty-one, and the remainder occurred in October and November. All the patients but one were under nine years of age, and almost all those that died were under four. Measles has always been a most fatal disease at the Asylum. Amongst the cases now recorded, there was not a single example of acute inflammation in the chest; the eruption was imperfectly developed, the attendant fever typhoid, and death appeared to result from bronchitis, followed by congestion of the lungs and brain.

STRUMA.

Eighteen cases of struma are recorded, of which eight terminated in death. The number, eighteen, does not, of course, include all the cases of struma that existed in the Asylum, but only those children who were incapacitated by the extent of their disease from mingling in the sports or labours of their fellows, and who were consequently placed in the apartments of the sick, and committed to the care of the medical attendant. Death, in these instances, was occasioned by a slow process of wasting, and by diarrhœa, which was quite beyond

the control of medicine. Such of the bodies as were opened, showed an exsanguineous condition of the body generally, a thoroughly empty state of the intestines, and immense scrofulous enlargement of the mesenteric glands. These latter organs were sometimes found as big as walnuts, arranged in large clusters near the spine, thus arresting almost completely the passage of nourishment from the intestines into the circulation.

Subjoined is a tabular view of the number of deaths which have occurred in each of the last eight years at the Asylum, of the ages at which they took place, and the diseases by which they were produced.

	1st half-year.	2nd half-year.
The deaths in 1831 were	17	4
.... 1832	9	0
.... 1833	19	7
.... 1834	14	6
.... 1835	5	0
.... 1836	11	4
.... 1837	10	31
.... 1838	8	10
	93	62

TABLE *showing the Sex, Age, and Fatal Disease of* 155 *Children who Died in the Birmingham Asylum in eight successive years, commencing with* 1831.

	Under one year.		Between 1 and 2.		Between 2 and 3.		Between 3 and 4.		Between 4 and 5.		Between 5 and 10.		More than 10.		Age unknown.		Sex unknown.	Total.		Total Cases.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.	
Anasarca	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—	—	1	2	3
Bronchitis	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Croup	—	—	—	—	—	—	—	—	1	—	3	1	—	—	—	—	—	4	1	5
Diarrhœa	1	2	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2	2	4
Epilepsy	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	1
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	1
Fever	—	—	—	—	—	—	2	—	1	—	4	5	—	1	—	1	—	7	7	14
Inflammation of viscera	—	—	—	—	—	—	—	—	—	—	2	2	—	4	—	—	—	2	7	9
Marasmus	—	3	2	2	1	—	2	—	3	1	8	8	2	3	—	—	—	18	17	35
Phthisis	—	—	—	—	—	—	—	—	—	—	1	2	1	5	2	2	—	4	9	18
Pertussis	—	—	—	1	1	1	1	2	1	—	1	4	—	—	1	1	—	5	9	14
Rubeola	—	—	1	1	1	3	3	2	—	4	2	3	—	—	—	1	1	6	14	20
Struma	—	—	1	1	—	—	—	1	1	1	4	8	—	—	—	—	—	6	11	17
Variola	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
Unspecified disease	1	—	—	1	—	1	1	1	—	1	1	1	—	1	1	2	2	4	8	12
Total	2	5	4	6	6	5	10	6	7	7	26	37	4	15	4	7	4	63	88	151*

* Sex unknown 4, making a total of 155.

SURGICAL SOCIETY OF IRELAND.

TUBERCLE OF THE BRAIN.

Dr. BELLINGHAM laid before the Society a specimen of scrofulous tubercle of the brain, and said he thought that a brief detail of the symptoms and also of the *post-mortem* examination, might not be uninteresting. Tubercular disease of the brain, although not uncommon, is one of those affections with the incipient stages of which we are very imperfectly acquainted. We are familiar with its pathology, but we knew very little of the symptoms which would lead us to detect its existence during life. It is said that its development may be prevented by appropriate treatment, but when once established, it appears to be a disease not amenable to any known remedial agents. On this very account, however, it is, perhaps, better calculated than any other cerebral affection to throw light on the functions performed by different parts of the brain. The researches of Foville, Grandchamps, Serres, and others, seem to prove that paralysis, when limited to the lower extremity of one side, very frequently depends upon disease of the corpus striatum of the opposite side; while paralysis of the upper extremity is found to coexist with disease of the optic thalamus of the opposite side. Now, if in all, or in the majority of cases, characterised by paralysis of a single extremity, we found the optic thalamus, or the corpus striatum of the opposite side affected, we would have little difficulty in forming our diagnosis; but it most frequently happens that in cases of paralysis, depending on disease within the cranium, the paralysis is not confined to a single extremity, the upper and lower of the same side being in general affected, though not in the same degree. It is from this last circumstance not being sufficiently attended to, that such apparent contradictions are to be found in the works of various authors. Again, as the corpora striata and optic thalami, are situated close to each other, one of these organs can hardly be extensively affected without involving the other. As the morbid specimen which had been laid before the Society was calculated to throw some light on the subject, Dr. Bellingham thought it of sufficient interest to demand a few observations. The subject of the case was a boy, about four years old, with dark hair and eyes, and of a

healthy appearance. He was admitted into St. Vincent's Hospital on the 5th of last December, labouring under weakness and a spasmodic affection of the right arm, and weakness of the leg of the same side. He had a halt in the right leg, and moved the limb like a person labouring under partial paralysis. He had a certain degree of power in the right arm; but if he attempted to hold it out, or perform any act with it, he lost all control over its motions, which resembled those of chorea. His parent stated that he had been a remarkably healthy child until about a fortnight previous to admission, when he suddenly fell, while walking with his mother, and on lifting him up, she found that he had lost all power of his right side. On being carried home and placed by the fire, he recovered the use of his leg, and was able to go about as usual, but did not recover the use of his arm. Three days before admission, while running about after breakfast, he fell again, vomited, and lost all power of the right leg. In about three hours he recovered sufficiently to be able to walk, but with a halt. The symptoms presented at first view so much of the phenomena of chorea, that Dr. Bellingham was induced to try tonics and antispasmodics. Finding these to fail, he had recourse to full diet, with a small quantity of wine, and the use of the tepid shower-bath, every second day. After this treatment had been continued for upwards of a month, the child began to complain of rigors and headach, particularly of the upper and back part of the head. His appetite declined; his tongue became foul; his bowels costive; he sighed frequently; ground his teeth during sleep, and had an inclination to vomit. He also complained of pain on pressure over the lower part of the abdomen. On the 6th of April, while standing near the fire, he suddenly reeled and fell upon his side, but when taken up was quite sensible. Leeches were applied to the temples, and he was ordered to take at first hydrarg. c. creta, and afterwards, calomel; but both were rejected from the stomach immediately after being swallowed. Mercurial frictions were then employed; but the symptoms of cerebral disease went on with increasing intensity until the 19th of April, when he died comatose. On examination, nine hours after death, both hemispheres of the brain, but particularly the left, were softer than natural; the brain was also less vascular than usual. The arachnoid membrane on the surface of the hemispheres, presented a number of opaque patches, which were slightly adherent to the dura mater. There was also opacity and thickening of the same membrane at the base of the brain. The lateral ventricles contained a quantity of perfectly limpid fluid, amounting to about eight ounces. In the anterior lobe of the right hemisphere there was a small scrofulous tumour; a similar one of larger size occupied the site of the optic thalamus on the left side. There were some small tubercles in the liver, and several were found in the middle lobe of the right lung.—*Dub. Med. Press.*

INFLUENCE OF THE MIND IN HEARING.

The perception of the direction of sound is not a faculty of the sense of hearing itself, but is an act of judgment which founds it on experience previously acquired. From the modifications which the sensation of sound undergoes according to the direction in which the sound reaches us, the mind infers the position of the sounding body. The only true guide for this inference is the more intense action of the sound upon one than upon the other ear. But even here there is room for much deception by the influence of reflexion, or resonance, and by the propagation of sound from a distance without loss of intensity through curved conducting-tubes filled with air. By means of such tubes, or of solid conductors which convey the sonorous vibrations from their source to a distant resonant body, sounds may be made to originate apparently in a new situation.

The direction of sound may also be judged of by means of one ear only; the position of the ear and head being varied, so that the sonorous undulations at one moment fall upon the ear in a perpendicular direction, at another moment obliquely.

When neither of these circumstances can guide us in distinguishing the direction of sound, as when it falls equally upon both ears, its source being, for example, either directly in front or behind us, it becomes impossible to determine whence the sound comes; this, which has been demonstrated by Venturini's experiments,* is a necessary consequence of physical laws. Undulations give not merely the impulses of condensation in one direction, but that of rarefaction in the opposite; and, when several undulations succeed one another, these impulses in opposite directions regularly alternate. If, therefore, the nerves were capable of distinguishing the direction of impulses, no means would thus be afforded for determining whether a sound came in one direction or in the opposite.

Ventriloquists take advantage of the difficulty with which the direction of sounds is recognised, and also of the influence of the imagination over our judgment, when they direct their voice in a certain direction, and, at the same time, pretend, themselves, to hear the sounds coming from thence.

The distance of the source of sounds is not recognised by the sense itself, but it is inferred from their intensity. The sound

* "Voigt's Magazin," Bd. 2.

itself is always seated but in one place, namely, in our ear; but it is interpreted as coming from an exterior soniferous body. When the intensity of the voice is modified in imitation of the effect of distance, it excites the idea of its originating at a distance; and this, also, is taken advantage of by ventriloquists.

The mind has, however, the power of influencing the act of sensation itself,—of voluntarily increasing its intensity, as in "listening." By the faculty of attention we can distinguish one sound out of several or many others,—can follow the tones of one instrument in a full orchestra.

When two persons address their speech to our opposite ears simultaneously, the two impressions conveyed to the sensorium become mixed; and it is only by great exertion of the attention, and by the aid of a difference of tone of the two voices, that we are enabled to follow the sounds of one exclusively, disregarding those of the other, which are then heard as a more or less indistinct murmur. When the activity of the sensorium is not directed to the impressions communicated to it by the auditory nerves, sounds that exist are not heard; or, what frequently happens, a sound may be so faint, that, on account of the mind being directed to other objects, it is for a moment disregarded, but is heard as soon as the attention is recalled to it. Similar phenomena are observed to occur in the case of the other senses.

DOUBLE HEARING.

Corresponding to the double vision of the same object with the two eyes, is the double hearing with the two ears; and analogous to the double vision with one eye, dependent on unequal refraction, is the double hearing of a single sound with one ear, owing to the sound coming to the ear through media of unequal conducting power. The first kind of double hearing is very rare; instances of it are recorded, however, by Sauvages and Itard. In one of the two cases related by Sauvages, the octave was heard with the fundamental note, which, if the observation was correct, would be difficult to explain. In Itard's case, the sound heard by the two ears differed in height. Such cases may, possibly, be found to be more frequent than is supposed, when attention is more directed to the subject: I was myself once troubled by a kind of echo of higher pitch, which accompanied sounds of moderate intensity, such as the human voice. This phenomenon was, however, very transient, and has never recurred; moreover, I do not know that it arose from unequal action of the two ears.

The second kind of double hearing, which depends on the unequal conducting power of two media through which the same sound is transmitted to the ear, may easily be experienced. If a small bell be sounded in water, while the ears are closed by plugs, and a solid conductor is interposed between the water and the ear, two sounds will be heard differing in intensity and tone; one being conveyed to the ear through the medium of the atmosphere, the other through the conducting-rod. In like manner, if, while both ears are plugged, the pipe, closed by membrane at its lower extremity, be dipped into the water, and sounded by another person, its note may be propagated to the ear with two different characters at the same time, by the atmospheric air, and by the solid rod immersed in the water.—*From Baly's Translation of Müller's Physiology, Part V.*

The celebrated French feuilltonist, M. Jules Janin, was present, we understand, last week, at one of the mountebank exhibitions in Conduit-street, and will probably devote to it an article in the "Journal des Débats," which cannot fail to prove extremely interesting.

At a late meeting of the London Medical Society, it was resolved that henceforward the annual subscription of members should be reduced to the sum of one guinea.

BOOKS RECEIVED.

Elements of the Practice of Medicine. By Richard Bright and Thomas Addison. Vol. I. Longman and Co., London, 1839. 8vo. pp. 613.

The Accoucheur, &c. By John Craig. M'Phun, Glasgow, 1839. 8vo. pp. 252.

The Transactions of the Provincial Medical and Surgical Association. Vol. VII. Churchill, London, 1839.

Müller's Elements of Physiology, translated by Dr. William Baly. Part V.—[One of the most interesting portions of this useful and ably-executed translation.]

TO CORRESPONDENTS.

Mr. Cronin must think us very simple, indeed, if he imagine that we will publish his list of *cures*.

We cannot publish the account of the operation at St. Bartholomew's by *S. B.*, unless privately authenticated.

The circular forwarded by a *General Practitioner* has come to hand.

Studiosus.—The object can be best obtained at the University of Paris.

The letters of *A Constant Reader*, *Mr. Aulsebrook*, *Mr. Simpson*, and *Mr. Barnes*, have been received.

We shall be glad to receive the paper alluded to from our Correspondent at Newcastle-upon-Tyne.